(.venv clean) root@kind-name-wilts-fin-01:~/abstract-agent-runner# python cli.py polyglot pov agent-maxi-2.py http://135.181.71.13:8000 -log-docker-to-stdout --verbose --timeout 1200 INFO: [POLYGLOT] Loaded 33 problems from datasets/polyglot/ polyglot.json DEBUG: [POLYGLOT] Problem affine-cipher verified successfully (found 16 associated tests) Problem beer-song verified successfully (found 8 DEBUG: [POLYGLOT] associated tests) DEBUG: [POLYGLOT] Problem book-store verified successfully (found 20 associated tests) DEBUG: [POLYGLOT] Problem bottle-song verified successfully (found 7 associated tests) DEBUG: [POLYGLOT] Problem bowling verified successfully (found 31) associated tests) DEBUG: [POLYGLOT] Problem connect verified successfully (found 10 associated tests) Problem dominoes verified successfully (found 13) DEBUG: [POLYGLOT] associated tests) DEBUG: [POLYGLOT] Problem dot-dsl verified successfully (found 12) associated tests) DEBUG: [POLYGLOT] Problem food-chain verified successfully (found 10 associated tests) Problem forth verified successfully (found 54 DEBUG: [POLYGLOT] associated tests) Problem go-counting verified successfully (found DEBUG: [POLYGLOT] 11 associated tests) DEBUG: [POLYGLOT] Problem grade-school verified successfully (found 20 associated tests) DEBUG: [POLYGLOT] Problem grep verified successfully (found 25 associated tests) DEBUG: [POLYGLOT] Problem hangman verified successfully (found 7 associated tests) Problem list-ops verified successfully (found 24 DEBUG: [POLYGLOT] associated tests) DEBUG: [POLYGLOT] Problem phone-number verified successfully (found 21 associated tests) DEBUG: [POLYGLOT] Problem pig-latin verified successfully (found 22) associated tests) Problem poker verified successfully (found 37) DEBUG: [POLYGLOT] associated tests) DEBUG: [POLYGLOT] Problem pov verified successfully (found 15 associated tests) DEBUG: [POLYGLOT] Problem proverb verified successfully (found 8 associated tests) DEBUG: [POLYGLOT] Problem react verified successfully (found 14 associated tests) DEBUG: [POLYGLOT] Problem rest-api verified successfully (found 9 associated tests) Problem robot-name verified successfully (found 4 DEBUG: [POLYGLOT] associated tests) DEBUG: [POLYGLOT] Problem scale-generator verified successfully

Problem sgf-parsing verified successfully (found

(found 17 associated tests)

DEBUG: [POLYGLOT]
23 associated tests)

```
DEBUG: [POLYGLOT]
                      Problem simple-linked-list verified successfully
(found 20 associated tests)
DEBUG: [POLYGLOT]
                      Problem transpose verified successfully (found 12)
associated tests)
DEBUG: [POLYGLOT]
                      Problem tree-building verified successfully (found
13 associated tests)
DEBUG: [POLYGLOT]
                      Problem two-bucket verified successfully (found 9
associated tests)
DEBUG: [POLYGLOT]
                      Problem variable-length-quantity verified
successfully (found 26 associated tests)
DEBUG: [POLYGLOT]
                      Problem wordy verified successfully (found 25
associated tests)
DEBUG: [POLYGLOT]
                      Problem zebra-puzzle verified successfully (found
2 associated tests)
DEBUG: [POLYGLOT]
                      Problem zipper verified successfully (found 14
associated tests)
 INFO: [POLYGLOT] Successfully loaded 33 problems
 INFO: Problem pov has 15 tests
 INFO: [SANDBOX] Checking gateway URL: http://135.181.71.13:8000
 INFO: [SANDBOX] Gateway URL http://135.181.71.13:8000 is valid
DEBUG: [SANDBOX] Stopping and deleting all containers
DEBUG: [SANDBOX] Stopped and deleted all containers
 INFO: [SANDBOX] Building Docker image: sandbox-image
[+] Building 0.3s (11/11) FINISHED
docker:default
 => [internal] load build definition from Dockerfile
 => => transferring dockerfile: 1.04kB
0.05
 => [internal] load metadata for docker.io/library/python:3.11-slim
0.2s
 => [internal] load .dockerignore
=> => transferring context: 2B
0.0s
 => [1/6] FROM docker.io/library/python:3.11-
slim@sha256:b6000fc45f769f42c4c717dab2675bbb0ec6531c32a0483a2f78de0b7023
e71b
0.0s
 => => resolve docker.io/library/python:3.11-
slim@sha256:b6000fc45f769f42c4c717dab2675bbb0ec6531c32a0483a2f78de0b7023
e71b
0.05
 => [internal] load build context
=> => transferring context: 46B
0.0s
 => CACHED [2/6] RUN apt-get update &&
                                          apt-get install -y --no-
install-recommends git patch diffutils && rm -rf /var/lib/apt/lists/
*
0.0s
 => CACHED [3/6] COPY sandbox_requirements.txt /tmp/
sandbox requirements.txt
0.0s
```

```
=> CACHED [4/6] RUN pip install --no-cache-dir --upgrade pip &&
                                                                rm /tmp/
install --no-cache-dir -r /tmp/sandbox_requirements.txt &&
sandbox requirements.txt
 => CACHED [5/6] RUN pip cache purge && rm -rf /root/.cache/pip
0.0s
 => CACHED [6/6] WORKDIR /sandbox
0.0s
=> exporting to image
0.0s
=> => exporting layers
0.0s
=> => writing image
sha256:6a0d37b7a80c209efc720b51333a5af41822e44e249d5749ba8c3dcb2762dbcd
0.0s
=> => naming to docker.io/library/sandbox-image
0.0s
 INFO: [SANDBOX] Successfully built Docker image: sandbox-image
DEBUG: [SANDBOX] Found sandbox network: sandbox-network
 INFO: [SANDBOX] Building Docker image: sandbox-proxy-image
[+] Building 0.3s (8/8) FINISHED
docker:default
=> [internal] load build definition from Dockerfile
0.05
 => => transferring dockerfile: 289B
0.0s
 => [internal] load metadata for docker.io/library/nginx:alpine
=> [internal] load .dockerignore
0.05
 => => transferring context: 2B
0.0s
 => [1/3] FROM docker.io/library/
nginx:alpine@sha256:61e01287e546aac28a3f56839c136b31f590273f3b41187a36f4
6f6a03bbfe22
0.0s
 => [internal] load build context
0.0s
 => => transferring context: 41B
0.0s
 => CACHED [2/3] RUN apk add --no-cache gettext
0.0s
 => CACHED [3/3] COPY nginx.conf.template /tmp/nginx.conf.template
0.05
 => exporting to image
0.0s
=> => exporting layers
0.0s
=> => writing image
sha256;b38edefd62e5475e622d31caf7dabe385f28d175b050c8ae714b02c9758742a3
0.0s
 => => naming to docker.io/library/sandbox-proxy-image
0.0s
 INFO: [SANDBOX] Successfully built Docker image: sandbox-proxy-image
 INFO: [SANDBOX] Running sandbox proxy
DEBUG: [SANDBOX] Connected sandbox proxy to bridge network
DEBUG: [SANDBOX] Starting watchdog thread
```

```
DEBUG: [SANDBOX] Started watchdog thread
 INFO: [PROBLEM SUITE] Starting sandbox to run agent for problem pov
DEBUG: [SANDBOX] Created sandbox temp directory for
<sandbox_tmpf8qgj5x7>: /tmp/tmpf8qgj5x7
DEBUG: [POLYGLOT] Copied main.py to /tmp/tmpf8qqj5x7/repo for pov
DEBUG: [POLYGLOT] Initializing git repository in /tmp/tmpf8ggj5x7/repo
for pov
DEBUG: [GIT] Initializing git repository in /tmp/tmpf8qgj5x7/repo
DEBUG: [GIT] Initialized git repository in /tmp/tmpf8qgj5x7/repo
DEBUG: [GIT] Adding all files in /tmp/tmpf8qgj5x7/repo
DEBUG: [GIT] Added all files in /tmp/tmpf8qqi5x7/repo
DEBUG: [GIT] Making initial commit: Initial commit
DEBUG: [GIT] Made initial commit: Initial commit
DEBUG: [POLYGLOT] Initialized git repository in /tmp/tmpf8qgj5x7/repo
for pov
DEBUG: [SANDBOX] Copied main Python script (/root/abstract-agent-runner/
problem suites/AGENT RUNNER.py) for <sandbox tmpf8gqj5x7>: /tmp/
tmpf8qqj5x7/AGENT RUNNER.py
DEBUG: [SANDBOX] Written input.json for <sandbox_tmpf8qgj5x7>: /tmp/
tmpf8qqj5x7/input.json
DEBUG: [SANDBOX] Running sandbox <sandbox tmpf8ggj5x7>
DEBUG: [SANDBOX] Started sandbox runner thread for <sandbox_tmpf8qgj5x7>
DEBUG: [PROBLEM SUITE] Started sandbox to run agent for problem pov
DEBUG: [DOCKER:sandbox_tmpf8qqj5x7] [AGENT_RUNNER] Entered main()
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [AGENT_RUNNER] Reading input.json
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [AGENT_RUNNER] Read input.json
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] [AGENT RUNNER] Loading /sandbox/
agent.pv
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [AGENT_RUNNER] Loaded /sandbox/
agent.py
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [AGENT_RUNNER] agent_main() function
found in /sandbox/agent.py
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] [AGENT RUNNER] Entering agent's
agent main()
DEBUG: [DOCKER:sandbox tmpf8qqj5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
______
=======
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 🚀 AGENT STARTING
DEBUG: [DOCKER:sandbox tmpf8ggi5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:27:49,885 - agent -
INFO - [AGENT-START] Run ID: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:27:49,885 - agent -
INFO - [AGENT-START] Repo directory: /sandbox/repo
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] 2025-10-21 19:27:49,886 - agent -
INFO - [AGENT-START] Test mode: False
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:27:49,886 - agent -
INFO - [AGENT-START] Timeout: 1800s, Max steps: 400
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [DEBUG] Starting git initialization
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] [DEBUG] Work directory: /sandbox/
repo
```

```
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [DEBUG] Before chdir - pwd shows: /
sandbox/repo
DEBUG: [DOCKER:sandbox tmpf8gqj5x7] [DEBUG] After chdir - pwd shows: /
sandbox/repo
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] [DEBUG] Git repository already
exists
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:27:49,894 - agent -
INFO - [AGENT-START] Problem statement length: 2577 chars
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Q DETERMINING PROBLEM TYPE...
DEBUG: [DOCKER:sandbox tmpf8qqj5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:27:49,894 - agent -
DEBUG - [REQUEST] run id: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b, model:
Owen/Owen3-Coder-480B-A35B-Instruct-FP8
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [CONTEXT] Messages fit: 436/219340
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:28:10,776 - agent -
INFO - [PROBLEM-TYPE] Determined: CREATE
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] NEW CREATE TASK DETECTED - STARTING
CREATE WORKFLOW
DEBUG: [DOCKER:sandbox tmpf8qqj5x7]
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:28:10,777 - agent -
INFO - [WORKFLOW] Starting CREATE task workflow
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
DEBUG: [DOCKER:sandbox tmpf8qqj5x7]
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] | NEW CREATE TASK WORKFLOW STARTING
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] 2025-10-21 19:28:10,777 - agent -
INFO - [CREATE] Starting CREATE task workflow
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:28:10,777 - agent -
INFO - [CREATE] Problem statement length: 2577 chars
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:28:10,777 - agent -
INFO - [CREATE] Step 1: Generating code skeleton
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:28:10,778 - agent -
INFO - [CREATE] Code skeleton generated: 636 chars
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:28:10,778 - agent -
INFO - [CREATE] Step 2: Generating initial solution
```

```
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:28:10,778 - agent -
INFO - Starting multi-step reasoning solution generation
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:28:10,778 - agent -
DEBUG - [REQUEST] run_id: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b, model:
Qwen/Qwen3-Coder-480B-A35B-Instruct-FP8
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] [CONTEXT] Messages fit: 919/219340
tokens
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:28:16,669 - agent -
INFO - Multi-step reasoning solution generation completed successfully
with infinite loop validation
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] 2025-10-21 19:28:16,669 - agent -
INFO - Generated initial solution successfully using multi-step
reasoning
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:28:16,669 - agent -
INFO - [CREATE] Initial solution generated: 3965 chars
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:28:16,669 - agent -
INFO - [CREATE] Step 3: Extracting and writing solution files
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Created file: ./main.py
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:28:16,670 - agent -
INFO - [CREATE] Created 1 solution files
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:28:16,670 - agent -
INFO - [CREATE] Step 4: Generating test files
DEBUG: [DOCKER:sandbox tmpf8qgj5x7] 2025-10-21 19:28:16,670 - agent -
INFO - Starting test cases generation
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:28:16,670 - agent -
DEBUG - [REQUEST] run id: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b, model:
Qwen/Qwen3-Coder-480B-A35B-Instruct-FP8
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [CONTEXT] Messages fit: 633/219340
tokens
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:28:23,620 - agent -
INFO - Step 1 - Testcase Generation completed
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:28:23,620 - agent -
DEBUG - [REQUEST] run_id: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b, model:
Owen/Owen3-Coder-480B-A35B-Instruct-FP8
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] [CONTEXT] Messages fit: 905/219340
tokens
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:28:30,524 - agent -
INFO - Step 2 - Testcase check completed
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:28:30,524 - agent -
INFO - Multi-step reasoning solution generation completed successfully
with infinite loop validation
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:28:30,524 - agent -
INFO - Generated testcases successfully using multi-step reasoning
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] 2025-10-21 19:28:30,524 - agent -
INFO - [CREATE] Test cases generated: 4301 chars
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] 2025-10-21 19:28:30,524 - agent -
INFO - [CREATE] Step 5: Extracting and writing test files
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Created file: ./test_tree_test.py
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] 2025-10-21 19:28:30,524 - agent -
INFO - [CREATE] Created 1 test files
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] ✓ Created 1 test files
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:28:30,524 - agent -
INFO - [CREATE] Time spent: 19.7s, Remaining timeout: 1720.3s
```

```
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:28:30,524 - agent -
INFO - [CREATE] Step 6: Starting iterative FIX workflow for refinement
DEBUG: [DOCKER:sandbox tmpf8ggj5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] \ Starting iterative refinement
workflow...
DEBUG: [DOCKER:sandbox tmpf8ggj5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] | \( \sqrt{1} ITERATIVE FIX WORKFLOW STARTING
DEBUG: [DOCKER:sandbox tmpf8qqj5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:28:30,524 - agent -
INFO - [ITERATIVE] Starting iterative FIX workflow
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:28:30,524 - agent -
INFO - [ITERATIVE] Run ID: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:28:30,524 - agent -
INFO - [ITERATIVE] Max steps: 30, Timeout: 1720.2525854110718s
DEBUG: [DOCKER:sandbox tmpf8gqj5x7] 2025-10-21 19:28:30,524 - agent -
INFO - [ITERATIVE] Test runner: unittest (mode: FILE)
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:28:30,524 - agent -
INFO - State file not found at .agent_state.json. Starting with a fresh
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] 2025-10-21 19:28:30,524 - agent -
INFO - [ITERATIVE] Loaded COT state: 0 existing thoughts
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:28:30,526 - agent -
INFO - [ITERATIVE] Initialized tool manager with 13 tools
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:28:30,527 - agent -
INFO - [ITERATIVE] Workflow started at 19:28:30
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] 🚀 Starting iterative workflow (max
30 steps, 1720.2525854110718s timeout)
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] 2025-10-21 19:28:30,527 - agent -
INFO - [RUN:199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b] Step 1/30
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [CONTEXT] Messages fit: 2629/107929
DEBUG: [DOCKER:sandbox tmpf8qgj5x7] 2025-10-21 19:28:30,527 - agent -
DEBUG - [REQUEST] run_id: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] [CONTEXT] Messages fit: 2629/107929
tokens
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:28:36,956 - agent -
INFO - LLM proposed action: search in all files content with args:
{'search_term': 'class Tree', 'case_sensitive': True}
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:28:36,957 - agent -
INFO - Tool observation (first 300 chars): ./test tree test.py:6:class
TreeTest(unittest.TestCase):
```

```
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] ./main.py:4:class Tree:...
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:28:36,957 - agent -
INFO - [RUN:199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b] Step 2/30
DEBUG: [DOCKER:sandbox_tmpf8qqj5x7] [CONTEXT] Messages fit: 2704/107929
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] 2025-10-21 19:28:36,958 - agent -
DEBUG - [REQUEST] run_id: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [CONTEXT] Messages fit: 2704/107929
tokens
DEBUG: [DOCKER:sandbox tmpf8qqi5x7] 2025-10-21 19:28:40.949 - agent -
INFO - LLM proposed action: get_file_content with args: {'file_path':
'./main.py'}
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:28:40,950 - agent -
INFO - Tool observation (first 300 chars): from json import dumps
DEBUG: [DOCKER:sandbox tmpf8qqj5x7]
DEBUG: [DOCKER:sandbox tmpf8qqj5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] class Tree:
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]         def __init__(self, label,
children=None):
DEBUG: [DOCKER:sandbox tmpf8ggj5x7]
                                            self.label = label
DEBUG: [DOCKER:sandbox tmpf8ggj5x7]
                                            self.children = children if
children is not None else []
DEBUG: [DOCKER:sandbox tmpf8ggi5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
                                        def __dict__(self):
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
                                            return {self.label:
[c. dict () for c in sorted(self.children)]}
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
                                     def __str__(self, in...
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:28:40,950 - agent -
INFO - [RUN:199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b] Step 3/30
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] [CONTEXT] Messages fit: 3122/107929
tokens
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:28:40,950 - agent -
DEBUG - [REQUEST] run id: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] [CONTEXT] Messages fit: 3122/107929
tokens
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:28:43,705 - agent -
INFO - LLM proposed action: get_file_content with args: {'file_path':
'./test tree test.py'}
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:28:43,705 - agent -
INFO - Tool observation (first 300 chars): import unittest
DEBUG: [DOCKER:sandbox tmpf8ggj5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] from main import Tree
DEBUG: [DOCKER:sandbox tmpf8qqj5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] class TreeTest(unittest.TestCase):
DEBUG: [DOCKER:sandbox tmpf8ggi5x7]
                                        def test empty tree(self):
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
                                            tree = Tree('a')
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
                                            expected = Tree('a')
DEBUG: [DOCKER:sandbox tmpf8qqj5x7]
self.assertEqual(tree.from_pov('a'), expected)
DEBUG: [DOCKER:sandbox tmpf8qqj5x7]
DEBUG: [DOCKER:sandbox tmpf8qqj5x7]
                                       def test single node tree(self):
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
                                            tree = Tree('a')
```

```
DEBUG: [DOCKER:sandbox tmpf8ggj5x7]
                                            expected = Tr...
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:28:43,705 - agent -
INFO - [RUN:199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b] Step 4/30
DEBUG: [DOCKER:sandbox_tmpf8qqj5x7] [CONTEXT] Messages fit: 3497/107929
tokens
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] 2025-10-21 19:28:43,706 - agent -
DEBUG - [REQUEST] run_id: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] [CONTEXT] Messages fit: 3497/107929
tokens
DEBUG: [DOCKER:sandbox tmpf8qqi5x7] 2025-10-21 19:28:48.322 - agent -
INFO - LLM proposed action: run_repo_tests with args: {'file_paths':
['./test_tree_test.py']}
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:28:48,322 - agent -
INFO - Running test command: python -m unittest test_tree_test
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:28:48,431 - agent -
INFO - Tool observation (first 300 chars): .....FF..FF......
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
______
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] FAIL: test_multi_node_tree_5
(test tree test.TreeTest.test multi node tree 5)
DEBUG: [DOCKER:sandbox tmpf8ggj5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Traceback (most recent call last):
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] File "/sandbox/repo/tes...
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:28:48,431 - agent -
INFO - [RUN:199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b] Step 5/30
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [CONTEXT] Messages fit: 3666/107929
tokens
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:28:48,431 - agent -
DEBUG - [REQUEST] run_id: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] [CONTEXT] Messages fit: 3666/107929
tokens
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:28:55,704 - agent -
INFO - LLM proposed action: get_file_content with args: {'file_path':
'./test_tree_test.py', 'search_start_line': 35, 'search_end_line': 50}
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:28:55,704 - agent -
INFO - Tool observation (first 300 chars): Lines 35-50 of ./
test tree test.py:
DEBUG: [DOCKER:sandbox tmpf8ggj5x7]
self.assertEqual(tree.from_pov('b'), expected)
DEBUG: [DOCKER:sandbox tmpf8qqi5x7]
DEBUG: [DOCKER:sandbox tmpf8qqj5x7]
                                      def
test_multi_node_tree_5(self):
                                           tree = Tree('a', [Tree('b',
DEBUG: [DOCKER:sandbox tmpf8qqj5x7]
[Tree('c'), Tree('d')]), Tree('e', [Tree('f'), Tree('g')])])
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
                                          expected = Tree('d',
[Tree('b', [Tree('a', [Tree('e', [Tree('f'),...
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:28:55,705 - agent -
INFO - [RUN:199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b] Step 6/30
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [CONTEXT] Messages fit: 3877/107929
tokens
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:28:55,705 - agent -
DEBUG - [REQUEST] run id: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b, model:
zai-org/GLM-4.5-FP8
```

```
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] [CONTEXT] Messages fit: 3877/107929
tokens
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] 2025-10-21 19:28:58,339 - agent -
INFO - LLM proposed action: get_file_content with args: {'file_path':
'./test_tree_test.py', 'search_start_line': 95, 'search_end_line': 105}
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] 2025-10-21 19:28:58,339 - agent -
INFO - Tool observation (first 300 chars): Lines 95-105 of ./
test tree test.pv:
DEBUG: [DOCKER:sandbox tmpf8ggj5x7]
                                            tree = Tree('a', [Tree('b'),
Tree('c')])
DEBUG: [DOCKER:sandbox tmpf8qqi5x7]
                                             with
self.assertRaises(ValueError) as context:
                                                 tree.path_to('d', 'a')
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
DEBUG: [DOCKER:sandbox tmpf8qqj5x7]
self.assertEqual(str(context.exception), "No path found")
DEBUG: [DOCKER:sandbox tmpf8qqj5x7]
DEBUG: [DOCKER:sandbox tmpf8qqj5x7]
                                         def
test_path_between_unconnected_nodes(self):
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:28:58,340 - agent -
DEBUG - Successfully saved agent state to .agent state.json
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:28:58,340 - agent -
INFO - [RUN:199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b] Step 7/30
DEBUG: [DOCKER:sandbox_tmpf8qqj5x7] [CONTEXT] Messages fit: 3961/107929
tokens
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:28:58,340 - agent -
DEBUG - [REOUEST] run id: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [CONTEXT] Messages fit: 3961/107929
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:29:06,727 - agent -
INFO - LLM proposed action: run code with args: {'content': "from main
import Tree\n\n# Test the failing case 5\ntree = Tree('a', [Tree('b',
[Tree('c'), Tree('d')]), Tree('e', [Tree('f'), Tree('g')])])\nexpected =
Tree('d', [Tree('b', [Tree('a', [Tree('e', [Tree('f'), Tree('g')]),
Tree('c')])]))\nresult = tree.from_pov('d')\n\nprint('Expected:',
expected)\nprint('Actual:', result)\nprint('Equal:', expected == result)
\n\n# Test the path issue\ntree2 = Tree('a', [Tree('b'), Tree('c',
                         path = tree2.path_to('b', 'd')\n
[Tree('d')])])\ntry:\n
print('Path found:', path)\nexcept ValueError as e:\n
                                                         print('Error:'.
str(e))", 'file_path': './debug_test.py'}
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:29:06,755 - agent -
INFO - Tool observation (first 300 chars): Expected: {"d": [{"b": [{"a":
[{"c": []}, {"e": [{"f": []}, {"g": []}]}]}]}
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Actual: {"d": [{"b": [{"a": [{"e":
[{"f": []}, {"g": []}]}], {"c": []}]}]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Equal: False
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Path found: ['b', 'a', 'c', 'd']
DEBUG: [DOCKER:sandbox tmpf8qqi5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] ...
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:29:06,755 - agent -
INFO - [RUN:199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b] Step 8/30
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] [CONTEXT] Messages fit: 3801/107929
tokens
```

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DEBUG: [DOCKER:sandbox tmpf8gqj5x7] 2025-10-21 19:29:06,755 - agent -
DEBUG - [REQUEST] run id: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [CONTEXT] Messages fit: 3801/107929
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] 2025-10-21 19:29:13,491 - agent -
INFO - LLM proposed action: get_file_content with args: {'file_path':
'./main.py', 'search_start_line': 1, 'search_end_line': 50}
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:29:13,492 - agent -
INFO - Tool observation (first 300 chars): Lines 1-50 of ./main.py:
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] from json import dumps
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] class Tree:
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
                                       def __init__(self, label,
children=None):
DEBUG: [DOCKER:sandbox tmpf8ggj5x7]
                                            self.label = label
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
                                            self.children = children if
children is not None else []
DEBUG: [DOCKER:sandbox tmpf8qqj5x7]
DEBUG: [DOCKER:sandbox tmpf8ggj5x7]
                                        def dict (self):
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
                                            return {self.label:
[c. dict () for c in sorted(self.children)]}
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] ...
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:29:13,492 - agent -
INFO - [RUN:199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b] Step 9/30
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [CONTEXT] Messages fit: 3781/107929
tokens
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:29:13,492 - agent -
DEBUG - [REOUEST] run id: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] [CONTEXT] Messages fit: 3781/107929
tokens
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:29:18,419 - agent -
INFO - LLM proposed action: get_file_content with args: {'file_path':
'./main.py', 'search_start_line': 50, 'search_end_line': 100}
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] 2025-10-21 19:29:18,419 - agent -
INFO - Tool observation (first 300 chars): Lines 50-100 of ./main.py:
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
                                         if not target node:
DEBUG: [DOCKER:sandbox tmpf8ggj5x7]
                                                raise ValueError("Tree
could not be reoriented")
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
DEBUG: [DOCKER:sandbox tmpf8qqj5x7]
                                            # Build parent map for the
entire tree
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
                                            parent_map = {}
DEBUG: [DOCKER:sandbox tmpf8qqj5x7]
                                            build parent map(root)
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
                                           # Now we need to rebuild the
tree with from node as the new root
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:29:18,419 - agent -
INFO - [RUN:199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b] Step 10/30
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] [CONTEXT] Messages fit: 3877/107929
tokens
```

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DEBUG: [DOCKER:sandbox tmpf8gqj5x7] 2025-10-21 19:29:18,419 - agent -
DEBUG - [REQUEST] run id: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [CONTEXT] Messages fit: 3877/107929
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] 2025-10-21 19:29:20,909 - agent -
INFO - LLM proposed action: get_file_content with args: {'file_path':
'./main.py', 'search start line': 100, 'search end line': 150}
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:29:20,910 - agent -
INFO - Tool observation (first 300 chars): Lines 100-115 of ./main.py:
DEBUG: [DOCKER:sandbox tmpf8qqi5x7]
                                               path.append(node.label)
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
                                               if node.label == target:
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
                                                    return path[:]
DEBUG: [DOCKER:sandbox tmpf8qqj5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
                                               for child in
node.children:
DEBUG: [DOCKER:sandbox tmpf8qqj5x7]
                                                   result =
find_path(child, target, path)
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
                                                   if result:
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
                                                       return resul...
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:29:20,910 - agent -
INFO - [RUN:199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b] Step 11/30
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] [CONTEXT] Messages fit: 3893/107929
tokens
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:29:20,910 - agent -
DEBUG - [REQUEST] run_id: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [CONTEXT] Messages fit: 3893/107929
tokens
DEBUG: [DOCKER:sandbox_tmpf8qqj5x7] 2025-10-21 19:29:44,656 - agent -
INFO - LLM proposed action: apply_code_edit with args: {'file_path': './
main.py', 'search': ' def from_pov(self, from_node):\n
First, let\'s find if the tree contains the from_node\n
find_node(node, target):\n
                                     if node.label == target:\n
                        for child in node.children:\n
return node\n
result = find_node(child, target)\n
                                                  if result:\n
                                                # Build parent map to
return result\n
                          return None\n\n
navigate upwards\n
                         def build_parent_map(node, parent=None):\n
parent_map[node.label] = parent\n
                                            for child in node.children:
                 build_parent_map(child, node)\n\n
                                                          # Get the
                                 def get_root(node):\n
root of the current tree\n
current = node\n
                           while True:\n
                                                        parent =
parent map.qet(current.label)\n
                                              if parent is None:\n
return current\n
                               current = parent\n\n
                                                           # Check if
from_node exists in the tree\n
                                  root = get_root(self) if
\'parent map\' in locals() else self\n
                                         target node =
find_node(root, from_node)\n
                               if not target_node:\n
raise ValueError("Tree could not be reoriented")\n\n
                                                           # Build
                                       parent map = {}\n
parent map for the entire tree\n
                                # Now we need to rebuild the tree with
build_parent_map(root)\n\n
from_node as the new root\n
                                 # We\'ll do this by creating a new
tree structure\n
                       visited = set()\n
                                                \n
                                                          def
build new tree(current label):\n
                                           if current label in visited:
                  return None\n
                                          visited.add(current label)\n
                                                   original node =
\n
             # Find the original node\n
find_node(root, current_label)\n
                                          new_children = [] \ n
```

```
# Add original children (except the one we came from)\n
                                 for child in original node.children:
if original_node:\n
                     if child.label not in visited:\n
new_child = build_new_tree(child.label)\n
                                                              if
new child:\n
                                      new children.append(new child)\n
             # Add parent as a child (except the one we came from)\n
parent = parent_map.get(current_label)\n
                                                  if parent and
parent.label not in visited:\n
                                            new parent child =
build_new_tree(parent.label)\n
                                            if new_parent_child:\n
new_children.append(new_parent_child)\n
                                                        \n
return Tree(current label, new children)\n
                                                         # Reset
                                            visited = set()\n
visited for the actual tree building\n
from_node):\n  # First, let\'s find if the tree contains the
from node\n
                 def find_node(node, target):\n
node.label == target:\n
                                     return node\n
child in node.children:\n
                                       result = find node(child,
                        if result:\n
target)\n
                                                       return result\n
return None\n\n
                      # Build parent map to navigate upwards\n
def build_parent_map(node, parent=None):\n
parent map[node.label] = parent\n
                                           for child in node.children:
                 build_parent_map(child, node)\n\n
                                                   # Check if
from node exists in the tree\n
                               target_node = find_node(self,
from node)\n
                  if not target_node:\n
                                                  raise
ValueError("Tree could not be reoriented")\n\n
                                                   # Build parent map
for the entire tree\n parent_map = {}\n
                           # Now we need to rebuild the tree with
build parent map(self)\n\n
from_node as the new root\n
                                # We\'ll do this by creating a new
tree structure\n
                     visited = set()\n
                                               \n
                                                        def
build_new_tree(current_label, came_from=None):\n
                                                         if
current_label in visited:\n
                                         return None\n
visited.add(current_label)\n
                                                    # Find the
                                      \n
original node\n
                         original_node = find_node(self,
current_label)\n
                         new_children = []\n
# Add original children (except the one we came from)\n
original_node:\n
                              for child in original_node.children:\n
if child.label != came from:\n
                                                   new child =
build_new_tree(child.label, current_label)\n
                                                                 if
new child:\n
                                      new_children.append(new_child)\n
             # Add parent as a child (except the one we came from)\n
parent = parent_map.get(current_label)\n
                                                  if parent and
parent.label != came_from:\n
                                          new_parent_child =
build new tree(parent.label, current label)\n
                                                          if
new parent child:\n
new_children.append(new_parent_child)\n
                                                         \n
return Tree(current_label, new_children)\n
                                               \n
                                                         # Reset
visited for the actual tree building\n
                                           visited = set()\n
return build_new_tree(from_node)'}
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:29:44,656 - agent -
INFO - Tool observation (first 300 chars): Error: You must get approval
before applying edits. Call get_approval_for_solution tool first....
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:29:44,657 - agent -
DEBUG - Successfully saved agent state to .agent state.json
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:29:44,657 - agent -
INFO - [RUN:199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b] Step 12/30
```

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DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [CONTEXT] Messages fit: 4520/107929
tokens
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] 2025-10-21 19:29:44,658 - agent -
DEBUG - [REQUEST] run_id: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] [CONTEXT] Messages fit: 4520/107929
tokens
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:29:53,422 - agent -
INFO - LLM proposed action: get_approval_for_solution with args:
{'solutions': ["Solution 1: Fix the tree reparenting logic by adding a
'came_from' parameter to track the direction when building the new tree.
This prevents cycles and ensures proper parent-child relationships. For
the path finding issue, fix the error handling to check if both nodes
exist first and raise the correct error messages ('No path found'
instead of 'Tree could not be reoriented' when from_node doesn't
exist).", 'Solution 2: Completely rewrite the tree reparenting logic
using a breadth-first approach starting from the target node. Build the
new tree by expanding outward in all directions (both to children and
parent) while maintaining proper relationships. For path finding, add
validation to check if both nodes exist in the original tree before
attempting to find a path, and ensure the correct error messages are
raised in all cases.'], 'selected_solution': 1, 'reason_for_selection':
"Solution 1 is more targeted and maintains the existing structure while
fixing the specific issues. The 'came_from' parameter approach is a
clean way to prevent cycles and ensure the tree is built correctly. This
solution is less invasive and more likely to maintain backward
compatibility while addressing all the failing test cases."}
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:29:53,423 - agent -
INFO - Solutions proposed. Selected index: 1. Reason: Solution 1 is more
targeted and maintains the existing structure while fixing the specific
issues. The 'came_from' parameter approach is a clean way to prevent
cycles and ensure the tree is built correctly. This solution is less
invasive and more likely to maintain backward compatibility while
addressing all the failing test cases.
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:29:53,423 - agent -
INFO - Tool observation (first 300 chars): Approved...
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] 2025-10-21 19:29:53,423 - agent -
INFO - [RUN:199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b] Step 13/30
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [CONTEXT] Messages fit: 4831/107929
tokens
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:29:53,423 - agent -
DEBUG - [REQUEST] run_id: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] [CONTEXT] Messages fit: 4831/107929
tokens
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:30:17,582 - agent -
INFO - LLM proposed action: apply_code_edit with args: {'file_path': './
main.py', 'search': ' def from_pov(self, from_node):\n
First, let\'s find if the tree contains the from node\n
find_node(node, target):\n
                                     if node.label == target:\n
                         for child in node.children:\n
return node\n
result = find_node(child, target)\n
                                                  if result:\n
return result\n
                          return None\n\n
                                                 # Build parent map to
navigate upwards\n
                        def build_parent_map(node, parent=None):\n
parent map[node.label] = parent\n
                                            for child in node.children:
                  build_parent_map(child, node)\n\n
\n
                                                           # Get the
```

```
root of the current tree\n
                                 def get root(node):\n
current = node\n
                           while True:\n
                                                        parent =
                                              if parent is None:\n
parent map.get(current.label)\n
return current\n
                               current = parent\n\n
                                                           # Check if
from node exists in the tree\n root = get root(self) if
\'parent_map\' in locals() else self\n
                                             target node =
find_node(root, from_node)\n
                                   if not target_node:\n
raise ValueError("Tree could not be reoriented")\n\n
parent map for the entire tree\n parent_map = \{\}\ build_parent_map(root)\n\n # Now we need to rebuild the tree with from_node as the new root\n # We\'ll do this by creating a new
tree structure\n visited = set()\n
                                                \n
                                                          def
                                          if current_label in visited:
                                         visited.add(current label)\n
             # Find the original node\n
                                                   original_node =
                                         new_children = []\n
find_node(root, current_label)\n
             # Add original children (except the one we came from)\n
                                  for child in original_node.children:
if original_node:\n
                     if child.label not in visited:\n
\n
new_child = build_new_tree(child.label)\n
new child:\n
                                       new_children.append(new_child)\n
             # Add parent as a child (except the one we came from)\n
parent = parent_map.get(current_label)\n
                                                   if parent and
parent.label not in visited:\n
                                             new_parent_child =
build_new_tree(parent.label)\n
                                             if new_parent_child:\n
new_children.append(new_parent_child)\n
                                                          \n
return Tree(current label, new children)\n
                                                           # Reset
visited for the actual tree building\n
                                            visited = set()\n
from_node):\n  # First, let\'s find if the tree contains the
from_node\n
                  def find_node(node, target):\n
                                                           if
node.label == target:\n
                                      return node\n
child in node.children:\n
                                      result = find_node(child,
                        if result:\n
target)\n
                                                        return result\n
return None\n\n
                 # Build parent map to navigate upwards\n
def build_parent_map(node, parent=None):\n
parent map[node.label] = parent\n
                                            for child in node.children:
                 build parent map(child, node)\n\n # Check if
\n
from node exists in the tree\n
                                target_node = find_node(self,
              if not target_node:\n
                                                   raise
from node)\n
ValueError("Tree could not be reoriented")\n\n
                                                    # Build parent map
                       parent_map = {} \n
for the entire tree\n
build_parent_map(self)\n\n  # Now we need to rebuild the tree with
from_node as the new root\n  # We\'ll do this by creating a new
tree structure\n
                       visited = set()\n \n
                                                          def
build_new_tree(current_label, came_from=None):\n
current_label in visited:\n
                                         return None\n
visited.add(current_label)\n
                                                     # Find the
                                       \n
                         original_node = find_node(self,
original node\n
current_label)\n
original_node = find_node
new_children = []\n
# Add original children (except the one we came from)\n
original node:\n
                               for child in original_node.children:\n
if child.label != came from:\n
                                                     new child =
build_new_tree(child.label, current_label)\n
new child:\n
                                       new children.append(new child)\n
             # Add parent as a child (except the one we came from)\n
\n
```

```
parent = parent_map.get(current_label)\n
                                                    if parent and
parent.label != came from:\n
                                           new parent child =
build new tree(parent.label, current label)\n
new_parent_child:\n
new children append (new parent child) \n
                                                           \n
return Tree(current_label, new_children)\n
                                                            # Reset
visited for the actual tree building\n
                                             visited = set()\n
return build new tree(from node)'}
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:30:17,583 - agent -
INFO - Tool observation (first 300 chars): ok, code edit applied
successfully...
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:30:17,583 - agent -
INFO - [RUN:199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b] Step 14/30
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [CONTEXT] Messages fit: 5194/107929
tokens
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:30:17,584 - agent -
DEBUG - [REQUEST] run id: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [CONTEXT] Messages fit: 5194/107929
tokens
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:30:30,602 - agent -
INFO - LLM proposed action: apply_code_edit with args: {'file_path': './
main.py', 'search': ' def path_to(self, from_node, to_node):\n
# Get tree from from_node\'s perspective\n
                                                 try:\n
new_tree = self.from_pov(from_node)\n
                                            except ValueError:\n
raise ValueError("Tree could not be reoriented")\n
                                                         \n
Now find path in the new tree\n
                                  def find_path(node, target,
                    path.append(node.label)\n
path):\n
                                                         if node.label
                           return path[:]\n
== target:\n
                                                        \n
for child in node.children:\n
                                             result = find_path(child,
                               if result:\n
target, path)\n
                                                               return
result\n
                                          path.pop()\n
                            \n
                                                                  return
                           path = find path(new tree, to node, [])\n
None\n
                  \n
                             raise ValueError("No path found")\n
if path is None:\n
return path', 'replace': '
                           def path_to(self, from_node, to_node):\n
# First check if both nodes exist in the tree\n
                                                 def
find node(node, target):\n
                                     if node.label == target:\n
                         for child in node.children:\n
return node\n
result = find_node(child, target)\n
                                                  if result:\n
return result\n
                          return None\n
                                               \n
                                                         from exists =
find_node(self, from_node) is not None\n
                                               to exists =
find_node(self, to_node) is not None\n
                                             \n
                                                       if not
from exists or not to exists:\n
                                           raise ValueError("No path
found")\n
                          # Get tree from from node\'s perspective\n
                \n
                                                               except
try:\n
                 new_tree = self.from_pov(from_node)\n
ValueError:\n
                        raise ValueError("No path found")\n
# Now find path in the new tree\n
                                   def find_path(node, target,
path):\n
                    path.append(node.label)\n
                                                         if node.label
                           return path[:]\n
                                                        \n
                                            result = find_path(child,
for child in node.children:\n
                               if result:\n
target, path)\n
                                                               return
result\n
                                         path.pop()\n
None\n
                           path = find path(new tree, to node, [])\n
                  \n
if path is None:\n
                            raise ValueError("No path found")\n
return path'}
```

```
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:30:30,604 - agent -
INFO - Tool observation (first 300 chars): ok, code edit applied
successfully...
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:30:30,604 - agent -
INFO - [RUN:199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b] Step 15/30
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] [CONTEXT] Messages fit: 5294/107929
tokens
DEBUG: [DOCKER:sandbox tmpf8qqi5x7] 2025-10-21 19:30:30.605 - agent -
DEBUG - [REQUEST] run_id: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] [CONTEXT] Messages fit: 5294/107929
tokens
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:30:33,504 - agent -
INFO - LLM proposed action: run_repo_tests with args: {'file_paths':
['./test_tree_test.py']}
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:30:33,505 - agent -
INFO - Running test command: python -m unittest test tree test
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:30:33,565 - agent -
INFO - Tool observation (first 300 chars): .....FF..F......
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
______
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] FAIL: test multi node tree 5
(test tree test.TreeTest.test multi node tree 5)
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Traceback (most recent call last):
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] File "/sandbox/repo/tes...
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:30:33,565 - agent -
INFO - [RUN:199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b] Step 16/30
DEBUG: [DOCKER:sandbox_tmpf8qqj5x7] [CONTEXT] Messages fit: 5389/107929
tokens
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:30:33,566 - agent -
DEBUG - [REOUEST] run id: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [CONTEXT] Messages fit: 5389/107929
tokens
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] 2025-10-21 19:30:37,688 - agent -
INFO - LLM proposed action: get_file_content with args: {'file_path':
'./test_tree_test.py', 'search_start_line': 35, 'search_end_line': 50}
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:30:37,688 - agent -
INFO - Tool observation (first 300 chars): Lines 35-50 of ./
test_tree_test.py:
DEBUG: [DOCKER:sandbox tmpf8qqj5x7]
self.assertEqual(tree.from pov('b'), expected)
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
DEBUG: [DOCKER:sandbox tmpf8ggj5x7]
test_multi_node_tree_5(self):
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
tree = Tree('a', [Tree('b',
[Tree('c'), Tree('d')]), Tree('e', [Tree('f'), Tree('g')])])
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
                                          expected = Tree('d',
[Tree('b', [Tree('a', [Tree('e', [Tree('f'),...
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:30:37,690 - agent -
DEBUG - Successfully saved agent state to .agent state.json
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:30:37,690 - agent -
INFO - [RUN:199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b] Step 17/30
```

```
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [CONTEXT] Messages fit: 5559/107929
tokens
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:30:37,691 - agent -
DEBUG - [REQUEST] run_id: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] [CONTEXT] Messages fit: 5559/107929
tokens
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:30:51,859 - agent -
INFO - LLM proposed action: run_code with args: {'content': "from main
import Tree\n\n# Test case 5: from_pov('d')\ntree = Tree('a', [Tree('b',
[Tree('c'), Tree('d')]), Tree('e', [Tree('f'), Tree('g')])])\nexpected =
Tree('d', [Tree('b', [Tree('a', [Tree('e', [Tree('f'), Tree('g')]),
    Tree('c')])]))\nresult = tree.from_pov('d')\n\nprint('=== Test Case 5
===')\nprint('Expected structure:')\nprint(f'Root: {expected.label}')
\nprint(f'Children: {[child.label for child in expected.children]}')\nif
expected.children:\n print(f'Child 0 children: {[child.label for
child in expected.children[0].children]}')\n
                                                 i f
                                         print(f'Grandchild 0 children:
expected.children[0].children:\n
{[child.label for child in expected.children[0].children[0].children]}')
\n\nprint('\\nActual structure:')\nprint(f'Root: {result.label}')
\nprint(f'Children: {[child.label for child in result.children]}')\nif
result.children:\n print(f'Child 0 children: {[child.label for child
in result.children[0].children]}')\n if result.children[0].children:
          print(f'Grandchild 0 children: {[child.label for child in
result.children[0].children[0].children]}')\n\nprint('\\nEqual:',
expected == result)\n\n# Test case 6: from_pov('e')\ntree2 = Tree('a',
[Tree('b', [Tree('c'), Tree('d')]), Tree('e', [Tree('f'), Tree('g')])])
\nexpected2 = Tree('e', [Tree('a', [Tree('b', [Tree('c'), Tree('d')]),
Tree('f'), Tree('g')]))\n = tree2.from_pov('e')\n\print('\n==
Test Case 6 ===')\nprint('Expected structure:')\nprint(f'Root:
{expected2.label}')\nprint(f'Children: {[child.label for child in
expected2.children]}')\nif expected2.children:\n
                                                     print(f'Child 0
children: {[child.label for child in expected2.children[0].children]}')
\n\nprint('\\nActual structure:')\nprint(f'Root: {result2.label}')
\nprint(f'Children: {[child.label for child in result2.children]}')\nif
result2.children:\n print(f'Child 0 children: {[child.label for child
in result2.children[0].children]}')\n\nprint('\\nEqual:', expected2 ==
result2)\n\n# Test path between unconnected nodes\ntree3 = Tree('a',
[Tree('b'), Tree('c', [Tree('d')])])\ntry:\n
                                               path =
tree3.path_to('b', 'd')\n print('\\n=== Path Test ===')\n
print('Path found:', path)\nexcept ValueError as e:\n print('\\n===
                    print('Error raised:', str(e))", 'file_path': './
Path Test ===')\n
debug test.py'}
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:30:51,892 - agent -
INFO - Tool observation (first 300 chars): === Test Case 5 ===
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] Expected structure:
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Root: d
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Children: ['b']
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] Child 0 children: ['a']
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Grandchild 0 children: ['e', 'c']
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
DEBUG: [DOCKER:sandbox tmpf8gqj5x7] Actual structure:
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] Root: d
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Children: ['b']
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] Child 0 children: ['c', 'a']
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Grandchild 0 children: []
```

```
DEBUG: [DOCKER:sandbox tmpf8qqj5x7]
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] Equal: False
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] === Test Case 6 ===
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Expected structure:
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] Root: e
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Children: ['a']
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] C...
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:30:51,892 - agent -
INFO - [RUN:199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b] Step 18/30
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] [CONTEXT] Messages fit: 5851/107929
tokens
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:30:51,893 - agent -
DEBUG - [REQUEST] run id: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] [CONTEXT] Messages fit: 5851/107929
tokens
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:31:16,595 - agent -
INFO - LLM proposed action: apply_code_edit with args: {'file_path': './
main.py', 'search': ' def from_pov(self, from_node):\n
First, let\'s find if the tree contains the from_node\n
                                                           def
                             if node.label == target:\n
find_node(node, target):\n
return node\n
                       for child in node.children:\n
result = find_node(child, target)\n
                                               if result:\n
                        return None\n\n # Build parent map to
return result\n
navigate upwards\n def build_parent_map(node, parent=None):\n
parent map[node.label] = parent\n for child in node.children:
                build_parent_map(child, node)\n\n
                                                      # Check if
from_node exists in the tree\n target_node = find_node(self,
ValueError("Tree could not be reoriented")\n\n
                                                 # Build parent map
for the entire tree\n parent_map = {}\n
build_parent_map(self)\n\n  # Now we need to rebuild the tree with
from_node as the new root\n  # We\'ll do this by creating a new
tree structure\n
                 visited = set()\n
                                        \n
build_new_tree(current_label, came_from=None):\n
                                                        if
current label in visited:\n
                                        return None\n
visited.add(current_label)\n
                                     \n
                                                  # Find the
original node\n
current_label)\n
original_node = find_node(self,
new_children = []\n
# Add original children (except the one we came from)\n
original_node:\n
                             for child in original_node.children:\n
if child.label != came from:\n
                                                  new child =
build_new_tree(child.label, current_label)\n
new_child:\n
                                     new_children.append(new_child)\n
             # Add parent as a child (except the one we came from)\n
                                                if parent and
parent = parent_map.get(current_label)\n
parent.label != came_from:\n
                            new_parent_child =
build new tree(parent.label, current label)\n
                                                         if
new_parent_child:\n
new_children.append(new_parent_child)\n
                                                       \n
# Reset
from_node):\n  # First, let\'s find if the tree contains the
from_node\n def find_node(node, target):\n
```

```
node.label == target:\n
                                    return node\n
child in node.children:\n
                                      result = find_node(child,
                       if result:\n
target)\n
                                                      return result\n
                 # Build parent map to navigate upwards\n
return None\n\n
def build parent map(node, parent=None):\n
parent map[node.label] = parent\n
                                           for child in node.children:
                 build_parent_map(child, node)\n\n # Check if
\n
from node exists in the tree\n
                               target node = find node(self,
from_node)\n if not target_node:\n
ValueError("Tree could not be reoriented")\n\n
                                                  # Build parent map
for the entire tree\n parent map = \{\}\n
build_parent_map(self)\n\n  # Now we need to rebuild the tree with
from_node as the new root\n  # We\'ll do this by creating a new
tree structure\n
                      visited = set()\n \n
                                                         def
build new_tree(current_label, came_from=None):\n
                                                         if
                                         return None\n
current_label in visited:\n
visited.add(current label)\n
                                                    # Find the
                                      \n
                        original_node = find_node(self,
original node\n
current_label)\n new_children = []\n
# Add original children (except the one we came from)\n
original node:\n
                              for child in original_node.children:\n
if child.label != came_from:\n
                                                   new child =
build new tree(child.label, current label)\n
new_child:\n
                                      new_children.append(new_child)\n
\n
             # Add parent as a child (except the one we came from)\n
parent = parent_map.get(current_label)\n
                                                  if parent and
                                         new_parent_child =
parent.label != came from:\n
build_new_tree(parent.label, current_label)\n
new parent child:\n
new_children.append(new_parent_child)\n
                                                         \n
return Tree(current_label, new_children)\n
                                                         # Reset
                                               \n
return build new tree(from node)'}
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:31:16,596 - agent -
INFO - Tool observation (first 300 chars): ok, code edit applied
successfully...
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] 2025-10-21 19:31:16,596 - agent -
INFO - [RUN:199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b] Step 19/30
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [CONTEXT] Messages fit: 6507/107929
tokens
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:31:16,597 - agent -
DEBUG - [REQUEST] run_id: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] [CONTEXT] Messages fit: 6507/107929
tokens
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:31:39,894 - agent -
INFO - LLM proposed action: apply_code_edit with args: {'file_path': './
main.py', 'search': ' def from_pov(self, from_node):\n
First, let\'s find if the tree contains the from node\n
find_node(node, target):\n
                                   if node.label == target:\n
                       for child in node.children:\n
return node\n
result = find_node(child, target)\n
                                                if result:\n
return result\n
                         return None\n\n # Build parent map to
navigate upwards\n def build_parent_map(node, parent=None):\n
parent map[node.label] = parent\n for child in node.children:
                 build_parent_map(child, node)\n\n
\n
                                                        # Check if
```

```
from node exists in the tree\n target_node = find_node(self,
from_node)\n if not target_node:\n raise
ValueError("Tree could not be reoriented")\n\n # Build parent map
for the entire tree\n parent_map = {}\n
build_parent_map(self)\n\n  # Now we need to rebuild the tree with
from_node as the new root\n  # We\'ll do this by creating a new
tree structure\n visited = set()\n \n
                                                        def
build_new_tree(current_label, came_from=None):\n
                             return None\n
\n # F
current_label in visited:\n
visited.add(current_label)\n
                                                   # Find the
original node\n
current_label)\n
original_node = find_node(self,
new_children = []\n
# Add original children (except the one we came from)\n
original node:\n
                       for child in original_node.children:\n
if child.label != came_from:\n
                                                  new_child =
build new tree(child.label, current label)\n
new_child:\n
                                      new children.append(new child)\n
             # Add parent as a child (except the one we came from)\n
parent = parent_map.get(current_label)\n
if parent and
parent.label != came_from:\n
                                         new_parent_child =
build_new_tree(parent.label, current_label)\n
new parent child:\n
new_children.append(new_parent_child)\n
                                                         \n
                                              \n
return Tree(current_label, new_children)\n
visited for the actual tree building\n
                                            visited = set()\n
from_node):\n  # First, let\'s find if the tree contains the
from_node\n  def find_node(node, target):\n  if
node.label == target:\n return node\n
child in node children:\n
child in node.children:\n
                                      result = find_node(child,
target)\n
                       if result:\n
                                                       return result\n
return None\n\n  # Build parent map to navigate upwards\n
def build parent map(node, parent=None):\n
parent_map[node.label] = parent\n
                                           for child in node.children:
                 build_parent_map(child, node)\n\n  # Check if
from_node exists in the tree\n target_node = find_node(self,
from node)\n if not target node:\n
                                                  raise
ValueError("Tree could not be reoriented")\n\n
                                                  # Build parent map
for the entire tree\n parent_map = {}\n
build parent map(self)\n\n # Build a map of all nodes and their
original children\n def build_children_map(node):\n
children_map[node.label] = [child.label for child in node.children]\n
for child in node.children:\n
                                          build children map(child)\n
         children_map = {}\n build_children_map(self)\n\n
# Now we need to rebuild the tree with from_node as the new root\n
# We\'ll do this by creating a new tree structure\n
                                                    visited =
         \n def build_new_tree(current_label,
set()\n
if current_label in visited:\n
(except the one we came from)\n for child_label in children_map.get(current_label, []):\n if child
                                           # Add original children
                                                    if child label !=
                new_child = build_new_tree(child_label,
came from:\n
current_label)\n
                                  if new_child:\n
new children.append(new child)\n
                                 \n
                                                   # Add parent
as a child (except the one we came from)\n
                                                  parent =
```

```
parent_map.get(current_label)\n
                                             if parent and parent.label !=
came from:\n
                             new parent child =
build new tree(parent.label, current label)\n
                                                                if
new_parent_child:\n
new_children.append(new_parent child)\n
                                                              \n
return Tree(current label, new children)\n
                                                               # Reset
                                                    \n
visited for the actual tree building\n
                                          visited = set()\n
return build new tree(from node)'}
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:31:39,896 - agent -
INFO - Tool observation (first 300 chars): ok, code edit applied
successfully...
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] 2025-10-21 19:31:39,896 - agent -
INFO - [RUN:199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b] Step 20/30
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [CONTEXT] Messages fit: 7078/107929
tokens
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] 2025-10-21 19:31:39,897 - agent -
DEBUG - [REQUEST] run id: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [CONTEXT] Messages fit: 7078/107929
tokens
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] 2025-10-21 19:31:52,925 - agent -
INFO - LLM proposed action: run_code with args: {'content': "from main
import Tree\n\n# Test case 5: from_pov('d')\ntree = Tree('a', [Tree('b',
[Tree('c'), Tree('d')]), Tree('e', [Tree('f'), Tree('g')])])\nexpected =
Tree('d', [Tree('b', [Tree('a', [Tree('e', [Tree('f'), Tree('g')]),
    Tree('c')])]))\nresult = tree.from_pov('d')\n\nprint('=== Test Case 5
===')\nprint('Expected structure:')\nprint(f'Root: {expected.label}')
\nprint(f'Children: {[child.label for child in expected.children]}')\nif
expected.children:\n
                        print(f'Child 0 children: {[child.label for
child in expected.children[0].children]}')\n
                                                 if
expected.children[0].children:\n
                                         print(f'Grandchild 0 children:
{[child.label for child in expected.children[0].children[0].children]}')
\n\nprint('\\nActual structure:')\nprint(f'Root: {result.label}')
\nprint(f'Children: {[child.label for child in result.children]}')\nif
result.children:\n print(f'Child 0 children: {[child.label for child
in result.children[0].children]}')\n if result.children[0].children:
          print(f'Grandchild 0 children: {[child.label for child in
result.children[0].children[0].children]}')\n\nprint('\\nEqual:',
expected == result)\n\n# Test case 6: from_pov('e')\ntree2 = Tree('a')
[Tree('b', [Tree('c'), Tree('d')]), Tree('e', [Tree('f'), Tree('g')])])
\nexpected2 = Tree('e', [Tree('a', [Tree('b', [Tree('c'), Tree('d')]),
Tree('f'), Tree('g')]))\nresult2 = tree2.from_pov('e')\n\nprint('\n===
Test Case 6 ===')\nprint('Expected structure:')\nprint(f'Root:
{expected2.label}')\nprint(f'Children: {[child.label for child in
expected2.children]}')\nif expected2.children:\n
                                                      print(f'Child 0
children: {[child.label for child in expected2.children[0].children]}')
\n\nprint('\\nActual structure:')\nprint(f'Root: {result2.label}')
\nprint(f'Children: {[child.label for child in result2.children]}')\nif
result2.children:\n print(f'Child 0 children: {[child.label for child
in result2.children[0].children]}')\n\nprint('\\nEqual:', expected2 ==
result2)", 'file_path': './debug_test.py'}
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:31:52,958 - agent -
INFO - Tool observation (first 300 chars): === Test Case 5 ===
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Expected structure:
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] Root: d
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Children: ['b']
```

```
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Child 0 children: ['a']
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] Grandchild 0 children: ['e', 'c']
DEBUG: [DOCKER:sandbox tmpf8qqj5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Actual structure:
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Root: d
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] Children: ['b']
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Child 0 children: ['c', 'a']
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] Grandchild 0 children: []
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Equal: False
DEBUG: [DOCKER:sandbox tmpf8ggi5x7]
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] === Test Case 6 ===
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Expected structure:
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] Root: e
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Children: ['a']
DEBUG: [DOCKER:sandbox tmpf8qgj5x7] C...
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:31:52,958 - agent -
INFO - [RUN:199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b] Step 21/30
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [CONTEXT] Messages fit: 7238/107929
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:31:52,959 - agent -
DEBUG - [REOUEST] run id: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [CONTEXT] Messages fit: 7238/107929
tokens
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:32:20,701 - agent -
INFO - LLM proposed action: apply_code_edit with args: {'file_path': './
main.py', 'search': ' def from_pov(self, from_node):\n
First, let\'s find if the tree contains the from_node\n
find_node(node, target):\n
                                     if node.label == target:\n
                         for child in node.children:\n
return node\n
result = find_node(child, target)\n
                                                  if result:\n
                         return None\n\n # Build parent map to
navigate upwards\n
                      def build_parent_map(node, parent=None):\n
                                            for child in node.children:
parent_map[node.label] = parent\n
                 build_parent_map(child, node)\n\n # Check if
\n
from_node exists in the tree\n
                                     target node = find node(self,
from node)\n
                   if not target_node:\n
                                                    raise
ValueError("Tree could not be reoriented")\n\n
                                                   # Build parent map
for the entire tree\n
                       parent_map = {} \
build_parent_map(self)\n\n # Build a map of all nodes and their
original children\n def build_children_map(node):\n
children map[node.label] = [child.label for child in node.children]\n
                                            build children map(child)\n
for child in node.children:\n
          children_map = {}\n
build_children_map(self)\n\n
\n
# Now we need to rebuild the tree with from node as the new root\n
# We\'ll do this by creating a new tree structure\n
                                                         visited =
          \n def build_new_tree(current_label,
set()\n
                             if current label in visited:\n
came from=None):\n
return None\n
                        visited.add(current_label)\n
                                                                \n
new_children = []\n
                                            # Add original children
                              \n
(except the one we came from)\n
children_map.get(current_label, []):\n
for child_label in
if child
                                                     if child label !=
                               new_child = build_new_tree(child_label,
came from:\n
current label)\n
                                   if new child:\n
new_children.append(new_child)\n
                                           \n
                                                         # Add parent
```

```
as a child (except the one we came from)\n
                                           parent =
parent_map.get(current_label)\n
if parent and parent.label !=
                     new_parent_child =
came from:\n
build_new_tree(parent.label, current_label)\n
                                                  if
new parent child:\n
new children append (new parent child) \n
                                                \n
# Reset
from_node):\n  # First, let\'s find if the tree contains the
from node\n
              def find_node(node, target):\n
node.label == target:\n
                               return node\n
                                                    for
child in node.children:\n
                                result = find_node(child,
target)\n
                    if result:\n
return None\n\n
                 # Build parent map to navigate upwards\n
def build_parent_map(node, parent=None):\n
                                    for child in node.children:
parent map[node.label] = parent\n
              build_parent_map(child, node)\n\n
from_node exists in the tree\n target_node = find_node(self,
                                         raise
ValueError("Tree could not be reoriented")\n\n
                                          # Build parent map
for the entire tree\n parent_map = {}\n
build parent map(self)\n\n # Build a map of all nodes and their
original children\n def build_children_map(node):\n
children_map[node.label] = [child.label for child in node.children]\n
build_children_map(child)\n
# Build the new tree structure by determining new parent-child
relationships\n  # In the new tree, each node\'s children are:\n
# 1. Its original children (except the one that leads back to the new
            # 2. Its original parent (except the one that leads back
root)\n
path):\n path.append(node_label)\n
                                              parent =
parent_map.get(node_label)\n
                                if parent is None:\n
return path\n return find_path_to_root(parent.label, path)\n
        path_to_new_root = find_path_to_root(from_node, [])\n
path_to_new_root.reverse() # Now it\'s from original root to new root\n
\n  # Build new children map for the reparented tree\n
new children\n for node_label in children_map:\n
new_children = []\n
                 \n
                            # Original children become
children, except the one that\'s on the path to new root\n
for child_label in children_map[node_label]:\n
                                                  if
child_label not in path_to_new_root or
path to new root.index(child label) !=
path_to_new_root.index(node_label) + 1:\n
new_children.append(child_label)\n
                                         # Original
                                     \n
parent becomes a child, except the one that\'s on the path to new root\n
parent = parent_map.get(node_label)\n
                                      if parent:\n
if parent.label not in path_to_new_root or
path to new root.index(parent.label) !=
path to new root.index(node label) - 1:\n
new_children.append(parent.label)\n
new children map[node label] = new children\n \n
                                                  # Now
build the actual tree structure\n visited = set()\n
                                                     \n
```

```
def build tree recursive(node label):\n
                                                    if node_label in
visited:\n
                          return None\n
visited.add(node label)\n
                                                    children = [] \ n
                                     \n
for child_label in new_children_map.get(node_label, []):\n
child tree = build tree recursive(child label)\n
                                                                 if
child tree:\n
                                  children.append(child tree)\n
              return Tree(node_label, children)\n
\n
return build tree recursive(from node)'}
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:32:20,703 - agent -
INFO - Tool observation (first 300 chars): ok, code edit applied
successfully...
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] 2025-10-21 19:32:20,705 - agent -
DEBUG - Successfully saved agent state to .agent_state.json
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:32:20,705 - agent -
INFO - [RUN:199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b] Step 22/30
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [CONTEXT] Messages fit: 7886/107929
tokens
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:32:20,706 - agent -
DEBUG - [REQUEST] run_id: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [CONTEXT] Messages fit: 7886/107929
tokens
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] 2025-10-21 19:32:34,905 - agent -
INFO - LLM proposed action: run_code with args: {'content': "from main
import Tree\n\n# Test case 5: from_pov('d')\ntree = Tree('a', [Tree('b',
[Tree('c'), Tree('d')]), Tree('e', [Tree('f'), Tree('g')])])\nexpected =
Tree('d', [Tree('b', [Tree('a', [Tree('e', [Tree('f'), Tree('g')]),
Tree('c')])]))\nresult = tree.from_pov('d')\n\nprint('=== Test Case 5
===')\nprint('Expected structure:')\nprint(f'Root: {expected.label}')
\nprint(f'Children: {[child.label for child in expected.children]}')\nif
                        print(f'Child 0 children: {[child.label for
expected.children:\n
child in expected.children[0].children]}')\n
expected.children[0].children:\n
                                        print(f'Grandchild 0 children:
{[child.label for child in expected.children[0].children[0].children]}')
\n\nprint('\\nActual structure:')\nprint(f'Root: {result.label}')
\nprint(f'Children: {[child.label for child in result.children]}')\nif
                     print(f'Child 0 children: {[child.label for child
result.children:\n
in result.children[0].children]}')\n if result.children[0].children:
          print(f'Grandchild 0 children: {[child.label for child in
result.children[0].children[0].children]}')\n\nprint('\\nEqual:',
expected == result)\n\n# Test case 6: from_pov('e')\ntree2 = Tree('a')
[Tree('b', [Tree('c'), Tree('d')]), Tree('e', [Tree('f'), Tree('g')])])
\nexpected2 = Tree('e', [Tree('a', [Tree('b', [Tree('c'), Tree('d')]),
Tree('f'), Tree('g')])])\nresult2 = tree2.from_pov('e')\n\nprint('\\n==
Test Case 6 ===')\nprint('Expected structure:')\nprint(f'Root:
{expected2.label}')\nprint(f'Children: {[child.label for child in
expected2.children]}')\nif expected2.children:\n
                                                    print(f'Child 0
children: {[child.label for child in expected2.children[0].children]}')
\n\nprint('\\nActual structure:')\nprint(f'Root: {result2.label}')
\nprint(f'Children: {[child.label for child in result2.children]}')\nif
result2.children:\n
                       print(f'Child 0 children: {[child.label for child
in result2.children[0].children]}')\n\nprint('\\nEqual:', expected2 ==
result2)", 'file_path': './debug_test.py'}
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:32:34,944 - agent -
INFO - Tool observation (first 300 chars): Error running code: Traceback
(most recent call last):
```

```
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
                                       File "/sandbox/repo/./
debug_test.py", line 6, in <module>
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
                                         result = tree.from pov('d')
                                                  ^^^^^
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
DEBUG: [DOCKER:sandbox tmpf8ggj5x7]
                                       File "/sandbox/repo/main.py", line
87, in from pov
DEBUG: [DOCKER:sandbox tmpf8ggj5x7]
                                         if parent.label not in
path to new root or path to new root.inde...
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:32:34,944 - agent -
INFO - [RUN:199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b] Step 23/30
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] [CONTEXT] Messages fit: 8090/107929
tokens
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:32:34,945 - agent -
DEBUG - [REQUEST] run id: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] [CONTEXT] Messages fit: 8090/107929
tokens
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:32:41,348 - agent -
INFO - LLM proposed action: apply_code_edit with args: {'file_path': './
main.py', 'search': "
                                 # Original parent becomes a child,
except the one that's on the path to new root\n
                                                            parent =
parent_map.get(node_label)\n
                                                                     if
                                         if parent:\n
parent.label not in path_to_new_root or
path_to_new_root.index(parent.label) !=
path_to_new_root.index(node_label) - 1:\n
new_children.append(parent.label)", 'replace': "
                                                             # Original
parent becomes a child, except the one that's on the path to new root\n
parent = parent_map.get(node_label)\n
                                                  if parent:\n
parent_in_path = parent.label in path_to_new_root\n
                                                                     if
not parent_in_path or (parent_in_path and
path_to_new_root.index(parent.label) !=
path_to_new_root.index(node_label) - 1):\n
new children.append(parent.label)"}
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:32:41,349 - agent -
INFO - Tool observation (first 300 chars): ok, code edit applied
successfully...
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] 2025-10-21 19:32:41,349 - agent -
INFO - [RUN:199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b] Step 24/30
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [CONTEXT] Messages fit: 8244/107929
tokens
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] 2025-10-21 19:32:41,351 - agent -
DEBUG - [REQUEST] run_id: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] [CONTEXT] Messages fit: 8244/107929
tokens
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:32:55,705 - agent -
INFO - LLM proposed action: run_code with args: {'content': "from main
import Tree\n\n# Test case 5: from_pov('d')\ntree = Tree('a', [Tree('b'
[Tree('c'), Tree('d')]), Tree('e', [Tree('f'), Tree('g')])])\nexpected =
Tree('d', [Tree('b', [Tree('a', [Tree('e', [Tree('f'), Tree('g')]),
    Tree('c')])]))\nresult = tree.from_pov('d')\n\nprint('=== Test Case 5
===')\nprint('Expected structure:')\nprint(f'Root: {expected.label}')
\nprint(f'Children: {[child.label for child in expected.children]}')\nif
expected.children:\n print(f'Child 0 children: {[child.label for
child in expected.children[0].children]}')\n
expected.children[0].children:\n
                                        print(f'Grandchild 0 children:
```

```
{[child.label for child in expected.children[0].children[0].children]}')
\n\nprint('\\nActual structure:')\nprint(f'Root: {result.label}')
\nprint(f'Children: {[child.label for child in result.children]}')\nif
                                 print(f'Child 0 children: {[child.label for child
result.children:\n
in result.children[0].children]}')\n
                                                               if result.children[0].children:
                print(f'Grandchild 0 children: {[child.label for child in
result.children[0].children[0].children]}')\n\nprint('\\nEqual:',
expected == result)\n\n# Test case 6: from pov('e')\ntree2 = Tree('a')
[Tree('b', [Tree('c'), Tree('d')]), Tree('e', [Tree('f'), Tree('g')])])
\nexpected2 = Tree('e', [Tree('a', [Tree('b', [Tree('c'), Tree('d')]),
Tree('f'), Tree('g')]))\n = tree2.from pov('e') \n = tree2.from pov('
Test Case 6 ===')\nprint('Expected structure:')\nprint(f'Root:
{expected2.label}')\nprint(f'Children: {[child.label for child in
expected2.children]}')\nif expected2.children:\n
                                                                                    print(f'Child 0
children: {[child.label for child in expected2.children[0].children]}')
\n\nprint('\\nActual structure:')\nprint(f'Root: {result2.label}')
\nprint(f'Children: {[child.label for child in result2.children]}')\nif
                                      print(f'Child 0 children: {[child.label for child
result2.children:\n
in result2.children[0].children]}')\n\nprint('\\nEqual:', expected2 ==
result2)", 'file_path': './debug_test.py'}
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:32:55,737 - agent -
INFO - Tool observation (first 300 chars): Error running code: Traceback
(most recent call last):
DEBUG: [DOCKER:sandbox tmpf8ggi5x7]
                                                              File "/sandbox/repo/./
debug_test.py", line 6, in <module>
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
                                                                  result = tree.from_pov('d')
DEBUG: [DOCKER:sandbox tmpf8qqj5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
                                                              File "/sandbox/repo/main.py", line
88, in from pov
DEBUG: [DOCKER:sandbox tmpf8qqi5x7]
                                                              if not parent_in_path or
(parent_in_path and path_to_new_root.in...
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] 2025-10-21 19:32:55,737 - agent -
INFO - [RUN:199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b] Step 25/30
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [CONTEXT] Messages fit: 8487/107929
tokens
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:32:55,739 - agent -
DEBUG - [REQUEST] run id: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [CONTEXT] Messages fit: 8487/107929
tokens
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] 2025-10-21 19:33:02,749 - agent -
INFO - LLM proposed action: apply_code_edit with args: {'file_path': './
main.py', 'search': "
                                                      # Original parent becomes a child,
except the one that's on the path to new root\n
                                                                                                 parent =
parent_map.get(node_label)\n
                                                                 if parent:\n
parent_in_path = parent.label in path_to_new_root\n
                                                                                                               if
not parent_in_path or (parent_in_path and
path_to_new_root.index(parent.label) !=
path to new root.index(node label) - 1):\n
new_children.append(parent.label)", 'replace': "
                                                                                                   # Original
parent becomes a child, except the one that's on the path to new root\n
parent = parent map.get(node label)\n
                                                                                if parent:\n
parent in path = parent.label in path to new root\n
node_in_path = node_label in path_to_new_root\n
if not parent in path or not node in path or (parent in path and
node_in_path and path_to_new_root.index(parent.label) !=
```

```
path_to_new_root.index(node_label) - 1):\n
new children.append(parent.label)"}
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:33:02,751 - agent -
INFO - Tool observation (first 300 chars): ok, code edit applied
successfully...
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] 2025-10-21 19:33:02,751 - agent -
INFO - [RUN:199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b] Step 26/30
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [CONTEXT] Messages fit: 8599/107929
tokens
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:33:02,752 - agent -
DEBUG - [REOUEST] run id: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b. model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [CONTEXT] Messages fit: 8599/107929
tokens
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:33:21,622 - agent -
INFO - LLM proposed action: run_code with args: {'content': "from main
import Tree\n\n# Test case 5: from pov('d')\ntree = Tree('a', [Tree('b',
[Tree('c'), Tree('d')]), Tree('e', [Tree('f'), Tree('g')])])\nexpected =
Tree('d', [Tree('b', [Tree('a', [Tree('e', [Tree('f'), Tree('g')]),
Tree('c')])]))\nresult = tree.from_pov('d')\n\nprint('=== Test Case 5
===')\nprint('Expected structure:')\nprint(f'Root: {expected.label}')
\nprint(f'Children: {[child.label for child in expected.children]}')\nif
expected.children:\n
                        print(f'Child 0 children: {[child.label for
child in expected.children[0].children]}')\n
                                         print(f'Grandchild 0 children:
expected.children[0].children:\n
{[child.label for child in expected.children[0].children[0].children]}')
\n\nprint('\\nActual structure:')\nprint(f'Root: {result.label}')
\nprint(f'Children: {[child.label for child in result.children]}')\nif
result.children:\n print(f'Child 0 children: {[child.label for child
in result.children[0].children]}')\n
                                        if result.children[0].children:
\n
          print(f'Grandchild 0 children: {[child.label for child in
result.children[0].children[0].children]}')\n\nprint('\\nEqual:',
expected == result)\n\n# Test case 6: from pov('e')\ntree2 = Tree('a'
[Tree('b', [Tree('c'), Tree('d')]), Tree('e', [Tree('f'), Tree('g')])])
\nexpected2 = Tree('e', [Tree('a', [Tree('b', [Tree('c'), Tree('d')]),
Tree('f'), Tree('g')]))\nresult2 = tree2.from_pov('e')\n\nprint('\n===
Test Case 6 ===')\nprint('Expected structure:')\nprint(f'Root:
{expected2.label}')\nprint(f'Children: {[child.label for child in
expected2.children]}')\nif expected2.children:\n
                                                     print(f'Child 0
children: {[child.label for child in expected2.children[0].children]}')
\n\nprint('\\nActual structure:')\nprint(f'Root: {result2.label}')
\nprint(f'Children: {[child.label for child in result2.children]}')\nif
result2.children:\n print(f'Child 0 children: {[child.label for child
in result2.children[0].children]}')\n\nprint('\\nEqual:', expected2 ==
result2)", 'file_path': './debug_test.py'}
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:33:21,655 - agent -
INFO - Tool observation (first 300 chars): === Test Case 5 ===
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Expected structure:
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] Root: d
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Children: ['b']
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Child 0 children: ['a']
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] Grandchild 0 children: ['e', 'c']
DEBUG: [DOCKER:sandbox tmpf8qqj5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Actual structure:
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] Root: d
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Children: []
```

```
DEBUG: [DOCKER:sandbox tmpf8qqj5x7]
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] Equal: False
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] === Test Case 6 ===
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Expected structure:
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] Root: e
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Children: ['a']
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] Child 0 children: ['b', 'f', 'g']
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Actual structure:
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] Root: ...
DEBUG: [DOCKER:sandbox tmpf8gqj5x7] 2025-10-21 19:33:21,657 - agent -
DEBUG - Successfully saved agent state to .agent_state.json
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:33:21,657 - agent -
INFO - [RUN:199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b] Step 27/30
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [CONTEXT] Messages fit: 8846/107929
tokens
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:33:21,658 - agent -
DEBUG - [REQUEST] run_id: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [CONTEXT] Messages fit: 8846/107929
tokens
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:33:56,804 - agent -
INFO - LLM proposed action: apply_code_edit with args: {'file_path': './
main.py', 'search': ' def from_pov(self, from_node):\n
First, let\'s find if the tree contains the from_node\n
                                                              def
find_node(node, target):\n
                                    if node.label == target:\n
                        for child in node.children:\n
return node\n
result = find_node(child, target)\n
                                                 if result:\n
                         return None\n\n
                                               # Build parent map to
return result\n
navigate upwards\n
                        def build_parent_map(node, parent=None):\n
parent map[node.label] = parent\n
                                            for child in node.children:
                 build_parent_map(child, node)\n\n
\n
                                                         # Check if
from_node exists in the tree\n
                                target_node = find_node(self,
from node)\n
                   if not target_node:\n
                                                   raise
ValueError("Tree could not be reoriented")\n\n
                                                   # Build parent map
for the entire tree\n
build_parent_map(self)\n\n # Build a map
                                 # Build a map of all nodes and their
original children\n def build_children_map(node):\n
children_map[node.label] = [child.label for child in node.children]\n
for child in node.children:\n
                                            build children map(child)\n
         children_map = {}\n
build_children_map(self)\n\n
# Build the new tree structure by determining new parent-child
                      # In the new tree, each node\'s children are:\n
relationships\n
# 1. Its original children (except the one that leads back to the new
              # 2. Its original parent (except the one that leads back
to the new root)\n
                        \n
                                # First, find the path from the
                                      def find_path_to_root(node_label,
original root to the new root\n
                   path.append(node_label)\n
                                                        parent =
parent_map.get(node_label)\n
                                       if parent is None:\n
                        return find_path_to_root(parent.label, path)\n
return path\n
         path_to_new_root = find_path_to_root(from_node, [])\n
path to new root.reverse() # Now it\'s from original root to new root\n
         # Build new children map for the reparented tree\n
new children map = \{\}\n \n # For each node, determine its
                    for node_label in children_map:\n
new children\n
```

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new children = [] \ n
                                                                      # Original children become
                                                \n
children, except the one that\'s on the path to new root\n
for child_label in children_map[node_label]:\n
                                                                                                   if
child_label not in path_to_new_root or
path to new root.index(child label) !=
path_to_new_root.index(node_label) + 1:\n
new_children.append(child_label)\n
                                                                         \n
                                                                                             # Original
parent becomes a child, except the one that\'s on the path to new root\n
parent = parent_map.get(node_label)\n
if parent:\n
parent_in_path = parent.label in path_to_new_root\n
node in path = node label in path to new root\n
if not parent_in_path or not node_in_path or (parent_in_path and
node_in_path and path_to_new_root.index(parent.label) !=
path to new root.index(node label) - 1):\n
new_children.append(parent.label)\n
def build_tree_recursive(node_label):\n
if node_label in
                                return None\n
visited:\n
visited.add(node_label)\n
                                                          \n
                                                                               children = [] \ n
for child_label in new_children_map.get(node_label, []):\n
child tree = build tree_recursive(child_label)\n
                                                                                                      if
child tree:\n
                                                   children.append(child tree)\n
                      return Tree(node_label, children)\n \n
return build_tree_recursive(from_node)', 'replace': ' def
from_pov(self, from_node):\n  # First, let\'s find if the tree
contains the from_node\n  def find_node(node, target):\n
if node.label == target:\n  return node\n  formula   formula  formula  formula  formula  formula  formula  formula   formula  formula  formula  formula  formula  formula  formula   formula  formula  formula  formula  formula  formula  formula   formula  formula  formula  formula  formula  formula  formula   formula  formula  formula  formula  formula  formula  formula   formula  formula  formula  formula  formula  formula  formula   formula  formula  formula  formula  formula  formula  formula   formula  formula  formula  formula  formula  formula  formula   formula  formula  formula  formula  formula  formula  formula   formula  formula  formula  formula  formula  formula  formula   formula  formula  formula  formula  formula  formula  formula   formula  formula  formula  formula  formula  formula  formula   formula  formula  formula  formula  formula  formula  formula   formula  formula  formula  formula  formula  formula  formula   formula  formula  formula  formula  formula  formula  formula   formula  formula  formula  formula  formula  formula  formula   formula  formula  formula  formula  formula  formula  formula   formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formula  formul
                                                                                                           for
                                                               result = find_node(child,
child in node.children:\n
                                       if result:\n
target)\n
                                                                                           return result\n
return None\n\n  # Build parent map to navigate upwards\n
def build_parent_map(node, parent=None):\n
parent map[node.label] = parent\n
                                                                       for child in node.children:
                            build_parent_map(child, node)\n\n # Check if
from_node exists in the tree\n target_node = find_node(self,
from_node)\n if not target_node:\n raise
ValueError("Tree could not be reoriented")\n\n
                                                                                   # Build parent map
for the entire tree\n parent_map = {}\n
build_parent_map(self)\n\n # Build a map of all nodes and their
original children\n def build_children_map(node):\n
children_map[node.label] = [child.label for child in node.children]\n
for child in node.children:\n
                                                                      build_children_map(child)\n
              children_map = {}\n build_children_map(self)\n\n
\n
# Build the new tree using a simpler approach\n
                                                                                      # Start from the
def build_tree_recursive(current_label, came_from=None):\n
if current_label in visited:\n
                                                                     return None\n
visited.add(current_label)\n
                                                             \n
                                                                         new_children = []
                                            # Add original children (except the one we
                                    for child label in
came from)\n
children_map.get(current_label, []):\n
                                                                                 if child_label !=
                                                  child_tree =
came from:\n
build_tree_recursive(child_label, current_label)\n
                                                          new_children.append(child_tree)\n
child tree:\n
                      # Add parent as a child (except the one we came from)\n
parent = parent_map.get(current_label)\n
                                                                                 if parent and
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parent.label != came from:\n
                                              parent tree =
build_tree_recursive(parent.label, current_label)\n
                                                                      if
parent tree:\n
                                   new children.append(parent tree)\n
              return Tree(current_label, new_children)\n
return build tree recursive(from node)'}
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:33:56,805 - agent -
INFO - Tool observation (first 300 chars): ok, code edit applied
successfully...
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:33:56,805 - agent -
INFO - [RUN:199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b] Step 28/30
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] [CONTEXT] Messages fit: 9525/107929
tokens
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:33:56,807 - agent -
DEBUG - [REQUEST] run id: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] [CONTEXT] Messages fit: 9525/107929
tokens
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:34:20,186 - agent -
INFO - LLM proposed action: run_code with args: {'content': "from main
import Tree\n\n# Test case 5: from_pov('d')\ntree = Tree('a', [Tree('b',
[Tree('c'), Tree('d')]), Tree('e', [Tree('f'), Tree('g')])])\nexpected =
Tree('d', [Tree('b', [Tree('a', [Tree('e', [Tree('f'), Tree('g')]),
Tree('c')])]))\nresult = tree.from_pov('d')\n\nprint('=== Test Case 5
===')\nprint('Expected structure:')\nprint(f'Root: {expected.label}')
\nprint(f'Children: {[child.label for child in expected.children]}')\nif
                         print(f'Child 0 children: {[child.label for
expected.children:\n
child in expected.children[0].children]}')\n
                                         print(f'Grandchild 0 children:
expected.children[0].children:\n
{[child.label for child in expected.children[0].children[0].children]}')
\n\nprint('\\nActual structure:')\nprint(f'Root: {result.label}')
\nprint(f'Children: {[child.label for child in result.children]}')\nif
result.children:\n print(f'Child 0 children: {[child.label for child
in result.children[0].children]}')\n if result.children[0].children:
          print(f'Grandchild 0 children: {[child.label for child in
result.children[0].children[0].children]}')\n\nprint('\\nEqual:',
expected == result)\n\n# Test case 6: from_pov('e')\ntree2 = Tree('a',
[Tree('b', [Tree('c'), Tree('d')]), Tree('e', [Tree('f'), Tree('g')])])
\nexpected2 = Tree('e', [Tree('a', [Tree('b', [Tree('c'), Tree('d')]),
Tree('f'), Tree('g')])])\nresult2 = tree2.from_pov('e')\n\nprint('\\n===
Test Case 6 ===')\nprint('Expected structure:')\nprint(f'Root:
{expected2.label}')\nprint(f'Children: {[child.label for child in
expected2.children]}')\nif expected2.children:\n
                                                     print(f'Child 0
children: {[child.label for child in expected2.children[0].children]}')
\n\nprint('\\nActual structure:')\nprint(f'Root: {result2.label}')
\nprint(f'Children: {[child.label for child in result2.children]}')\nif
result2.children:\n print(f'Child 0 children: {[child.label for child
in result2.children[0].children]}')\n\nprint('\\nEqual:', expected2 ==
result2)", 'file_path': './debug_test.py'}
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:34:20,218 - agent -
INFO - Tool observation (first 300 chars): === Test Case 5 ===
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Expected structure:
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] Root: d
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] Children: ['b']
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Child 0 children: ['a']
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] Grandchild 0 children: ['e', 'c']
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
```

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DEBUG: [DOCKER:sandbox tmpf8ggj5x7] Actual structure:
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] Root: d
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Children: ['b']
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Child 0 children: ['c', 'a']
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] Grandchild 0 children: []
DEBUG: [DOCKER:sandbox tmpf8ggj5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Equal: False
DEBUG: [DOCKER:sandbox tmpf8qqj5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] === Test Case 6 ===
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Expected structure:
DEBUG: [DOCKER:sandbox tmpf8qqi5x7] Root: e
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Children: ['a']
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] C...
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:34:20,218 - agent -
INFO - [RUN:199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b] Step 29/30
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [CONTEXT] Messages fit: 9792/107929
tokens
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:34:20,219 - agent -
DEBUG - [REQUEST] run_id: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] [CONTEXT] Messages fit: 9792/107929
tokens
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] 2025-10-21 19:34:25,771 - agent -
INFO - LLM proposed action: run_repo_tests with args: {'file_paths':
['./test_tree_test.py']}
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:34:25,771 - agent -
INFO - Running test command: python -m unittest test tree test
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:34:25,830 - agent -
INFO - Tool observation (first 300 chars): .....FF..F......
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
______
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] FAIL: test multi node tree 5
(test tree test.TreeTest.test multi node tree 5)
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
DEBUG: [DOCKER:sandbox_tmpf8ggj5x7] Traceback (most recent call last):
DEBUG: [DOCKER:sandbox tmpf8gqj5x7] File "/sandbox/repo/tes...
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:34:25,830 - agent -
INFO - [RUN:199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b] Step 30/30
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [CONTEXT] Messages fit: 9970/107929
tokens
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:34:25,832 - agent -
DEBUG - [REQUEST] run_id: 199ea0dc-0837-4bc8-b8ab-1c58fdcc5a2b, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [CONTEXT] Messages fit: 9970/107929
tokens
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:34:40,186 - agent -
INFO - LLM proposed action: run_code with args: {'content': "from main
import Tree\n\n# Debug the path finding issue\ntree = Tree('a',
[Tree('b'), Tree('c', [Tree('d')])])\nprint('Tree structure:')
\nprint(f'Root: {tree.label}')\nprint(f'Children: {[child.label for
child in tree.children]}')\nprint(f'Child 0 children: {[child.label for
child in tree.children[0].children]}')\nprint(f'Child 1 children:
{[child.label for child in tree.children[1].children]}')\nif
tree.children[1].children:\n print(f'Grandchild children:
{[child.label for child in tree.children[1].children[0].children]}')
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\n\ntry:\n path = tree.path_to('b', 'd')\n print('\\nPath found:',
path)\nexcept ValueError as e:\n print('\\nError raised:', str(e))
\n\n# Let's also check if both nodes exist\nfrom main import Tree\n\ndef
node\n
        for child in node.children:\n
                                             result = find node(child,
target)\n
                if result:\n
                                       return result\n
None\n\nb_exists = find_node(tree, 'b') is not None\nd_exists =
find node(tree, 'd') is not None\nprint(f'\\nNode b exists: {b exists}')
\nprint(f'Node d exists: {d_exists}')", 'file_path': './debug_path.py'}
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:34:40,213 - agent -
INFO - Tool observation (first 300 chars): Tree structure;
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Root: a
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Children: ['b', 'c']
DEBUG: [DOCKER:sandbox tmpf8gqj5x7] Child 0 children: []
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Child 1 children: ['d']
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Grandchild children: []
DEBUG: [DOCKER:sandbox tmpf8qqj5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Path found: ['b', 'a', 'c', 'd']
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] Node b exists: True
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] Node d exists: True
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] ...
DEBUG: [DOCKER:sandbox_tmpf8qqj5x7] 2025-10-21 19:34:40,214 - agent -
WARNING - Workflow ended by reaching max steps (30).
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:34:40,214 - agent -
INFO - Workflow execution complete. Generating final patch.
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:34:40,214 - agent -
INFO - Generating final git patch...
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:34:40,236 - agent -
INFO - Generating final git patch...
DEBUG: [DOCKER:sandbox tmpf8qqj5x7]
DEBUG: [DOCKER:sandbox tmpf8qqi5x7]
DEBUG: [DOCKER:sandbox tmpf8qqj5x7]
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] 2025-10-21 19:34:40,256 - agent -
INFO - [WORKFLOW] CREATE workflow completed
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] HEAD is now at af216df Initial
commit
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7]
DEBUG: [DOCKER:sandbox tmpf8qqj5x7]
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] AGENT FINISHED
DEBUG: [DOCKER:sandbox tmpf8qqj5x7]
=======
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] 2025-10-21 19:34:40,261 - agent -
INFO - [AGENT-END] Agent execution completed
DEBUG: [DOCKER:sandbox tmpf8ggj5x7] [AGENT RUNNER] Exited agent's
agent_main()
```

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DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [AGENT_RUNNER] Writing output.json
DEBUG: [DOCKER:sandbox tmpf8qqj5x7] [AGENT RUNNER] Wrote output.json
DEBUG: [DOCKER:sandbox_tmpf8qgj5x7] [AGENT_RUNNER] Exiting main()
DEBUG: [SANDBOX] <sandbox_tmpf8qgj5x7> finished running
DEBUG: [SANDBOX] <sandbox tmpf8qqj5x7> captured 484 lines of logs
DEBUG: [SANDBOX] Read output.json from <sandbox tmpf8ggj5x7>: /tmp/
tmpf8qgj5x7/output.json
DEBUG: [PROBLEM SUITE] Validating diff generated by
<sandbox_tmpf8qgj5x7> for pov
DEBUG: [PROBLEM_SUITE] Diff generated by <sandbox_tmpf8qgj5x7> for pov
is valid
INFO: [PROBLEM SUITE] Finished sandbox to run agent for problem pov:
success
====== DIFF (322 lines) =======
diff --git a/debug_path.py b/debug_path.py
new file mode 100644
index 0000000..b868d33
--- /dev/null
+++ b/debug_path.py
@ -0,0 +1,34 @
+from main import Tree
+# Debug the path finding issue
+tree = Tree('a', [Tree('b'), Tree('c', [Tree('d')])])
+print('Tree structure:')
+print(f'Root: {tree.label}')
+print(f'Children: {[child.label for child in tree.children]}')
+print(f'Child 0 children: {[child.label for child in
tree.children[0].children]}')
+print(f'Child 1 children: {[child.label for child in
tree.children[1].children]}')
+if tree.children[1].children:
     print(f'Grandchild children: {[child.label for child in
tree.children[1].children[0].children]}')
+try:
     path = tree.path_to('b', 'd')
     print('\nPath found:', path)
+except ValueError as e:
     print('\nError raised:', str(e))
+
+# Let's also check if both nodes exist
+from main import Tree
+def find_node(node, target):
     if node.label == target:
+
+
         return node
     for child in node.children:
+
         result = find node(child, target)
+
+
         if result:
             return result
     return None
```

```
+b_exists = find_node(tree, 'b') is not None
+d_exists = find_node(tree, 'd') is not None
+print(f'\nNode b exists: {b_exists}')
+print(f'Node d exists: {d_exists}')
\ No newline at end of file
diff --qit a/debug test.py b/debug test.py
new file mode 100644
index 0000000.1e93d69
--- /dev/null
+++ b/debug_test.py
00 - 0.0 + 1.45
+from main import Tree
+# Test case 5: from pov('d')
+tree = Tree('a', [Tree('b', [Tree('c'), Tree('d')]), Tree('e',
[Tree('f'), Tree('g')])])
+expected = Tree('d', [Tree('b', [Tree('a', [Tree('e', [Tree('f'),
Tree('g')]), Tree('c')])])])
+result = tree.from_pov('d')
+print('=== Test Case 5 ===')
+print('Expected structure:')
+print(f'Root: {expected.label}')
+print(f'Children: {[child.label for child in expected.children]}')
+if expected.children:
     print(f'Child 0 children: {[child.label for child in
expected.children[0].children]}')
     if expected.children[0].children:
         print(f'Grandchild 0 children: {[child.label for child in
expected.children[0].children[0].children]}')
+print('\nActual structure:')
+print(f'Root: {result.label}')
+print(f'Children: {[child.label for child in result.children]}')
+if result.children:
     print(f'Child 0 children: {[child.label for child in
result.children[0].children]}')
     if result.children[0].children:
         print(f'Grandchild 0 children: {[child.label for child in
result.children[0].children[0].children]}')
+print('\nEqual:', expected == result)
+# Test case 6: from pov('e')
+tree2 = Tree('a', [Tree('b', [Tree('c'), Tree('d')]), Tree('e',
[Tree('f'), Tree('g')])])
+expected2 = Tree('e', [Tree('a', [Tree('b', [Tree('c'), Tree('d')]),
Tree('f'), Tree('g')])])
+result2 = tree2.from pov('e')
+print('\n=== Test Case 6 ===')
+print('Expected structure:')
+print(f'Root: {expected2.label}')
+print(f'Children: {[child.label for child in expected2.children]}')
+if expected2.children:
```

```
print(f'Child 0 children: {[child.label for child in
expected2.children[0].children]}')
+print('\nActual structure:')
+print(f'Root: {result2.label}')
+print(f'Children: {[child.label for child in result2.children]}')
+if result2.children:
     print(f'Child 0 children: {[child.label for child in
result2.children[0].children]}')
+print('\nEqual:', expected2 == result2)
\ No newline at end of file
diff --git a/main.py b/main.py
index 21dbe4b..c6c45b2 100644
--- a/main.py
+++ b/main.py
@@ -19,7 +19,107 @@ class Tree:
         return self.__dict__() == other.__dict__()
     def from_pov(self, from_node):
         pass
         # First, let's find if the tree contains the from_node
+
         def find_node(node, target):
+
             if node.label == target:
                 return node
             for child in node.children:
+
                 result = find_node(child, target)
                 if result:
+
                     return result
             return None
         # Build parent map to navigate upwards
+
         def build_parent_map(node, parent=None):
             parent_map[node.label] = parent
+
             for child in node.children:
+
                 build_parent_map(child, node)
         # Check if from node exists in the tree
         target_node = find_node(self, from_node)
         if not target node:
+
             raise ValueError("Tree could not be reoriented")
         # Build parent map for the entire tree
         parent map = {}
         build_parent_map(self)
+
         # Build a map of all nodes and their original children
         def build_children_map(node):
+
             children_map[node.label] = [child.label for child in
node.children]
             for child in node.children:
+
                 build_children_map(child)
+
+
         children_map = {}
         build children map(self)
```

```
# Build the new tree using a simpler approach
+
         # Start from the new root and recursively build the tree
         visited = set()
         def build_tree_recursive(current_label, came_from=None):
             if current_label in visited:
                 return None
             visited.add(current_label)
             new_children = []
+
             # Add original children (except the one we came from)
             for child_label in children_map.get(current_label, []):
+
                 if child_label != came_from:
                     child_tree = build_tree_recursive(child_label,
current_label)
                     if child tree:
+
                         new_children.append(child_tree)
+
             # Add parent as a child (except the one we came from)
             parent = parent_map.get(current_label)
+
             if parent and parent.label != came_from:
                 parent_tree = build_tree_recursive(parent.label,
+
current_label)
                 if parent_tree:
                     new_children.append(parent_tree)
+
             return Tree(current_label, new_children)
+
         return build_tree_recursive(from_node)
     def path_to(self, from_node, to_node):
         pass
         # First check if both nodes exist in the tree
+
         def find_node(node, target):
             if node.label == target:
                 return node
             for child in node.children:
                 result = find_node(child, target)
                 if result:
+
                     return result
             return None
         from_exists = find_node(self, from_node) is not None
         to_exists = find_node(self, to_node) is not None
+
         if not from_exists or not to_exists:
             raise ValueError("No path found")
+
         # Get tree from from_node's perspective
         try:
+
             new_tree = self.from_pov(from_node)
         except ValueError:
             raise ValueError("No path found")
         # Now find path in the new tree
```

```
def find_path(node, target, path):
+
+
             path.append(node.label)
             if node.label == target:
                 return path[:]
             for child in node.children:
                 result = find_path(child, target, path)
+
                 if result:
                     return result
+
             path.pop()
             return None
+
+
         path = find_path(new_tree, to_node, [])
         if path is None:
+
             raise ValueError("No path found")
         return path
\ No newline at end of file
diff --git a/test_tree_test.py b/test_tree_test.py
new file mode 100644
index 0000000..3b66e0d
--- /dev/null
+++ b/test_tree_test.py
@@ -0,0 +1,107 @@
+import unittest
+from main import Tree
+
+class TreeTest(unittest.TestCase):
     def test_empty_tree(self):
         tree = Tree('a')
+
         expected = Tree('a')
+
         self.assertEqual(tree.from_pov('a'), expected)
+
+
     def test_single_node_tree(self):
         tree = Tree('a')
+
         expected = Tree('a')
         self.assertEqual(tree.from_pov('a'), expected)
+
+
     def test_multi_node_tree(self):
         tree = Tree('a', [Tree('b'), Tree('c')])
+
         expected = Tree('b', [Tree('a', [Tree('c')])])
         self.assertEqual(tree.from pov('b'), expected)
+
+
+
     def test_multi_node_tree_2(self):
         tree = Tree('a', [Tree('b', [Tree('c')]), Tree('d')])
         expected = Tree('c', [Tree('b', [Tree('a', [Tree('d')])])])
+
         self.assertEqual(tree.from_pov('c'), expected)
+
     def test_multi_node_tree_3(self):
+
         tree = Tree('a', [Tree('b', [Tree('c', [Tree('d')])])])
         expected = Tree('d', [Tree('c', [Tree('b', [Tree('a')])])])
         self.assertEqual(tree.from_pov('d'), expected)
+
     def test_multi_node_tree_4(self):
```

```
tree = Tree('a', [Tree('b'), Tree('c'), Tree('d')])
+
         expected = Tree('b', [Tree('a', [Tree('c'), Tree('d')])])
+
         self.assertEqual(tree.from_pov('b'), expected)
+
     def test_multi_node_tree_5(self):
+
         tree = Tree('a', [Tree('b', [Tree('c'), Tree('d')]), Tree('e',
[Tree('f'), Tree('g')])])
         expected = Tree('d', [Tree('b', [Tree('a', [Tree('e',
[Tree('f'), Tree('g')]), Tree('c')])])
         self.assertEqual(tree.from_pov('d'), expected)
+
+
     def test_multi_node_tree_6(self):
+
         tree = Tree('a', [Tree('b', [Tree('c'), Tree('d')]), Tree('e',
[Tree('f'), Tree('g')])])
         expected = Tree('e', [Tree('a', [Tree('b', [Tree('c'),
Tree('d')]), Tree('f'), Tree('g')])])
         self.assertEqual(tree.from pov('e'), expected)
+
+
     def test_multi_node_tree_7(self):
         tree = Tree('a', [Tree('b', [Tree('c'), Tree('d')]), Tree('e',
[Tree('f'), Tree('g')])])
         expected = Tree('a', [Tree('b', [Tree('c'), Tree('d')]),
Tree('e', [Tree('f'), Tree('g')])])
         self.assertEqual(tree.from_pov('a'), expected)
+
     def test_node_not_found(self):
+
         tree = Tree('a', [Tree('b'), Tree('c')])
+
         with self.assertRaises(ValueError) as context:
             tree.from_pov('d')
+
         self.assertEqual(str(context.exception), "Tree could not be
reoriented")
+
     def test_path_to_self(self):
+
         tree = Tree('a')
+
         expected = ['a']
+
         self.assertEqual(tree.path_to('a', 'a'), expected)
+
+
     def test_path_to_sibling(self):
+
         tree = Tree('a', [Tree('b'), Tree('c')])
+
         expected = ['b', 'a', 'c']
+
         self.assertEqual(tree.path_to('b', 'c'), expected)
+
+
     def test_path_to_parent(self):
+
         tree = Tree('a', [Tree('b'), Tree('c')])
expected = ['b', 'a']
+
+
+
         self.assertEqual(tree.path_to('b', 'a'), expected)
+
     def test_path_to_child(self):
+
         tree = Tree('a', [Tree('b'), Tree('c')])
+
         expected = ['a', 'b']
+
         self.assertEqual(tree.path_to('a', 'b'), expected)
+
+
     def test_path_to_grandchild(self):
+
         tree = Tree('a', [Tree('b', [Tree('c')]), Tree('d')])
+
         expected = ['a', 'b', 'c']
         self.assertEqual(tree.path_to('a', 'c'), expected)
```

```
+
     def test path to cousin(self):
         tree = Tree('a', [Tree('b', [Tree('c'), Tree('d')]), Tree('e',
[Tree('f'), Tree('g')])])
         expected = ['c', 'b', 'a', 'e', 'f']
+
+
         self.assertEqual(tree.path to('c', 'f'), expected)
+
     def test path to nonexistent node(self):
+
         tree = Tree('a', [Tree('b'), Tree('c')])
+
+
         with self.assertRaises(ValueError) as context:
             tree.path_to('a', 'd')
+
         self.assertEqual(str(context.exception), "No path found")
+
+
     def test path from nonexistent node(self):
+
         tree = Tree('a', [Tree('b'), Tree('c')])
+
         with self.assertRaises(ValueError) as context:
+
             tree.path to('d', 'a')
+
         self.assertEqual(str(context.exception), "No path found")
+
+
     def test_path_between_unconnected_nodes(self):
+
         tree = Tree('a', [Tree('b'), Tree('c', [Tree('d')])])
+
         with self.assertRaises(ValueError) as context:
+
+
             tree.path_to('b', 'd')
         self.assertEqual(str(context.exception), "No path found")
+
+if __name__ == '__main__':
     unittest.main()
\ No newline at end of file
====== LOGS (484 lines) =======
 INFO: [PROBLEM_SUITE] Starting sandbox to evaluate solution diff for
problem pov
DEBUG: [SANDBOX] Created sandbox temp directory for
<sandbox tmpg v64m7s>: /tmp/tmpg v64m7s
DEBUG: [POLYGLOT] Copied main.py to /tmp/tmpg_v64m7s/repo for pov
DEBUG: [POLYGLOT] Copied tests.py to /tmp/tmpg_v64m7s/repo for pov
DEBUG: [POLYGLOT] Initializing git repository in /tmp/tmpg_v64m7s/repo
for pov
DEBUG: [GIT] Initializing git repository in /tmp/tmpg_v64m7s/repo
DEBUG: [GIT] Initialized git repository in /tmp/tmpg_v64m7s/repo
DEBUG: [GIT] Adding all files in /tmp/tmpg v64m7s/repo
DEBUG: [GIT] Added all files in /tmp/tmpg_v64m7s/repo
DEBUG: [GIT] Making initial commit: Initial commit
DEBUG: [GIT] Made initial commit: Initial commit
DEBUG: [POLYGLOT] Initialized git repository in /tmp/tmpg_v64m7s/repo
DEBUG: [PROBLEM_SUITE] Applying agent's solution diff to /tmp/
tmpg_v64m7s/repo for problem pov
DEBUG: [PROBLEM SUITE] Applied agent's solution diff to /tmp/
tmpg v64m7s/repo for problem pov
DEBUG: [SANDBOX] Copied main Python script (/root/abstract-agent-runner/
problem suites/polyglot/TEST RUNNER.py) for <sandbox tmpg v64m7s>: /tmp/
tmpg_v64m7s/TEST_RUNNER.py
```

```
DEBUG: [SANDBOX] Written input.json for <sandbox tmpq v64m7s>: /tmp/
tmpg v64m7s/input.ison
DEBUG: [SANDBOX] Running sandbox <sandbox tmpg v64m7s>
DEBUG: [SANDBOX] Started sandbox runner thread for <sandbox_tmpg_v64m7s>
DEBUG: [PROBLEM SUITE] Started sandbox to evaluate solution diff for
problem pov
DEBUG: [SANDBOX] Cleaned up sandbox <sandbox_tmpf8qgj5x7>
DEBUG: [DOCKER:sandbox tmpg v64m7s] [POLYGLOT TEST RUNNER] Entered
main()
DEBUG: [DOCKER:sandbox_tmpg_v64m7s] [POLYGLOT_TEST_RUNNER] Loading
main.pv
DEBUG: [DOCKER:sandbox_tmpg_v64m7s] [POLYGLOT_TEST_RUNNER] Loaded
main.py
DEBUG: [DOCKER:sandbox tmpg v64m7s] [POLYGLOT TEST RUNNER] Loading
tests.py
DEBUG: [DOCKER:sandbox tmpg v64m7s] [POLYGLOT TEST RUNNER] Loaded
tests.py
DEBUG: [DOCKER:sandbox_tmpg_v64m7s] [POLYGLOT_TEST_RUNNER] Found test
class: PovTest
DEBUG: [DOCKER:sandbox_tmpg_v64m7s] [POLYGLOT_TEST_RUNNER] Found 15 test
methods
DEBUG: [DOCKER:sandbox_tmpg_v64m7s] [POLYGLOT_TEST_RUNNER] [1/15]
Running test_can_find_path_from_nodes_other_than_x...
DEBUG: [DOCKER:sandbox_tmpg_v64m7s] [POLYGLOT_TEST_RUNNER]
test_can_find_path_from_nodes_other_than_x: PASSED
DEBUG: [DOCKER:sandbox_tmpg_v64m7s] [POLYGLOT_TEST_RUNNER] [2/15]
Running test can find path not involving root...
DEBUG: [DOCKER:sandbox_tmpg_v64m7s] [POLYGLOT_TEST_RUNNER]
test_can_find_path_not_involving_root: PASSED
DEBUG: [DOCKER:sandbox tmpq v64m7s] [POLYGLOT TEST RUNNER] [3/15]
Running test_can_find_path_to_cousin...
DEBUG: [DOCKER:sandbox tmpg v64m7s] [POLYGLOT TEST RUNNER]
test can find path to cousin: PASSED
DEBUG: [DOCKER:sandbox_tmpg_v64m7s] [POLYGLOT_TEST_RUNNER] [4/15]
Running test_can_find_path_to_parent...
DEBUG: [DOCKER:sandbox_tmpg_v64m7s] [POLYGLOT_TEST_RUNNER]
test can find path to parent: PASSED
DEBUG: [DOCKER:sandbox tmpg v64m7s] [POLYGLOT TEST RUNNER] [5/15]
Running test_can_find_path_to_sibling...
DEBUG: [DOCKER:sandbox tmpg v64m7s] [POLYGLOT TEST RUNNER]
test_can_find_path_to_sibling: PASSED
DEBUG: [DOCKER:sandbox_tmpg_v64m7s] [POLYGLOT_TEST_RUNNER] [6/15]
Running test can reroot a complex tree with cousins...
DEBUG: [DOCKER:sandbox_tmpg_v64m7s] [POLYGLOT_TEST_RUNNER]
test_can_reroot_a_complex_tree_with_cousins: PASSED
DEBUG: [DOCKER:sandbox tmpg v64m7s] [POLYGLOT TEST RUNNER] [7/15]
Running test_can_reroot_a_tree_with_a_parent_and_many_siblings...
DEBUG: [DOCKER:sandbox_tmpg_v64m7s] [POLYGLOT_TEST_RUNNER]
test can reroot a tree with a parent and many siblings: PASSED
DEBUG: [DOCKER:sandbox_tmpg_v64m7s] [POLYGLOT_TEST_RUNNER] [8/15]
Running test_can_reroot_a tree with a parent and one sibling...
DEBUG: [DOCKER:sandbox tmpg v64m7s] [POLYGLOT TEST RUNNER]
test can reroot a tree with a parent and one sibling: PASSED
DEBUG: [DOCKER:sandbox_tmpg_v64m7s] [POLYGLOT_TEST_RUNNER] [9/15]
Running test can reroot a tree with new root deeply nested in tree...
```

```
DEBUG: [DOCKER:sandbox_tmpg_v64m7s] [POLYGLOT_TEST_RUNNER]
test can reroot a tree with new root deeply nested in tree: PASSED
DEBUG: [DOCKER:sandbox_tmpg_v64m7s] [POLYGLOT_TEST_RUNNER] [10/15]
Running test_errors_if_destination_does_not_exist...
DEBUG: [DOCKER:sandbox tmpg v64m7s] [POLYGLOT TEST RUNNER]
test errors if destination does not exist: PASSED
DEBUG: [DOCKER:sandbox_tmpg_v64m7s] [POLYGLOT_TEST_RUNNER] [11/15]
Running test errors if source does not exist...
DEBUG: [DOCKER:sandbox_tmpg_v64m7s] [POLYGLOT_TEST_RUNNER]
test_errors_if_source_does_not_exist: FAILED - 'No path found' != 'Tree
could not be reoriented'
DEBUG: [DOCKER:sandbox_tmpg_v64m7s] - No path found
DEBUG: [DOCKER:sandbox_tmpg_v64m7s] + Tree could not be reoriented
DEBUG: [DOCKER:sandbox tmpg v64m7s]
DEBUG: [DOCKER:sandbox_tmpg_v64m7s] [POLYGLOT_TEST_RUNNER] Test results:
DEBUG: [DOCKER:sandbox_tmpg_v64m7s] [{'name':
'test_can_find_path_from_nodes_other_than_x', 'status': 'pass'},
{'name': 'test_can_find_path_not_involving_root', 'status': 'pass'},
{'name': 'test_can_find_path_to_cousin', 'status': 'pass'}, {'name':
'test_can_find_path_to_parent', 'status': 'pass'}, {'name':
'test_can_find_path_to_sibling', 'status': 'pass'}, {'name':
'test_can_reroot_a_complex_tree_with_cousins', 'status': 'pass'},
{'name': 'test_can_reroot_a_tree_with_a_parent_and_many_siblings',
'status': 'pass'}, {'name':
'test_can_reroot_a_tree_with_a_parent_and_one_sibling', 'status':
'pass'}, {'name':
'test_can_reroot_a_tree_with_new_root_deeply_nested_in_tree', 'status':
'pass'}, {'name': 'test_errors_if_destination_does_not_exist', 'status':
'pass'}, {'name': 'test_errors_if_source_does_not_exist', 'status':
'fail'}, {'name':
'test_errors_if_target_does_not_exist_in_a_large_tree', 'status':
'skip'}, {'name':
'test errors if target does not exist in a singleton tree', 'status':
'skip'}, {'name':
'test moves children of the new root to same level as former parent',
'status': 'skip'}, {'name':
'test results in the same tree if the input tree is a singleton',
'status': 'skip'}l
DEBUG: [DOCKER:sandbox_tmpg_v64m7s] [POLYGLOT_TEST_RUNNER] Test summary:
10 passed, 1 failed, 4 skipped
DEBUG: [DOCKER:sandbox_tmpg_v64m7s] [POLYGLOT_TEST_RUNNER] Writing
output.json
DEBUG: [DOCKER:sandbox tmpg v64m7s] [POLYGLOT TEST RUNNER] Wrote
output.json
DEBUG: [DOCKER:sandbox_tmpg_v64m7s] [POLYGLOT_TEST_RUNNER] Exiting
main()
DEBUG: [SANDBOX] <sandbox_tmpg_v64m7s> finished running
DEBUG: [SANDBOX] <sandbox_tmpg_v64m7s> captured 38 lines of logs
DEBUG: [SANDBOX] Read output.json from <sandbox tmpg v64m7s>: /tmp/
tmpg v64m7s/output.json
 INFO: [PROBLEM_SUITE] Finished sandbox to evaluate solution diff for
problem pov: success
```

```
10 passed, 1 failed, 4 skipped
test_can_find_path_from_nodes_other_than_x - no category - pass
test_can_find_path_not_involving_root - no category - pass
test_can_find_path_to_cousin - no category - pass
test can find path to parent - no category - pass
test_can_find_path_to_sibling - no category - pass
test_can_reroot_a_complex_tree_with_cousins - no category - pass
test_can_reroot_a_tree_with_a_parent_and_many_siblings - no category -
pass
test_can_reroot_a_tree_with_a_parent_and_one_sibling - no category -
pass
test_can_reroot_a_tree_with_new_root_deeply_nested_in_tree - no category
pass
test errors if destination does not exist - no category - pass
test_errors_if_source_does_not_exist - no category - fail
test_errors_if_target_does_not_exist_in_a_large_tree - no category -
test_errors_if_target_does_not_exist_in_a_singleton_tree - no category -
skip
test_moves_children_of_the_new_root_to_same_level_as_former_parent - no
category - skip
test_results_in_the_same_tree_if_the_input_tree_is_a_singleton - no
category - skip
====== LOGS (38 lines) =======
```

DEBUG: [SANDBOX] Cleaned up sandbox <sandbox\_tmpg\_v64m7s>

```
(.venv clean) root@kind-name-wilts-fin-01:~/abstract-agent-runner#
python cli.py polyglot react agent-maxi-2.py http://135.181.71.13:8000
--log-docker-to-stdout --verbose --timeout 1200
 INFO: [POLYGLOT] Loaded 33 problems from datasets/polyglot/
polyglot.json
DEBUG: [POLYGLOT]
                      Problem affine-cipher verified successfully (found
16 associated tests)
DEBUG: [POLYGLOT]
                      Problem beer-song verified successfully (found 8
associated tests)
DEBUG: [POLYGLOT]
                      Problem book-store verified successfully (found 20
associated tests)
DEBUG: [POLYGLOT]
                      Problem bottle-song verified successfully (found 7
associated tests)
DEBUG: [POLYGLOT]
                      Problem bowling verified successfully (found 31
associated tests)
DEBUG: [POLYGLOT]
                      Problem connect verified successfully (found 10
associated tests)
DEBUG: [POLYGLOT]
                      Problem dominoes verified successfully (found 13)
associated tests)
```

```
Problem dot-dsl verified successfully (found 12
DEBUG: [POLYGLOT]
associated tests)
                      Problem food-chain verified successfully (found 10
DEBUG: [POLYGLOT]
associated tests)
                      Problem forth verified successfully (found 54
DEBUG: [POLYGLOT]
associated tests)
DEBUG: [POLYGLOT]
                      Problem go-counting verified successfully (found
11 associated tests)
DEBUG: [POLYGLOT]
                      Problem grade-school verified successfully (found
20 associated tests)
DEBUG: [POLYGLOT]
                      Problem grep verified successfully (found 25
associated tests)
                      Problem hangman verified successfully (found 7
DEBUG: [POLYGLOT]
associated tests)
DEBUG: [POLYGLOT]
                      Problem list-ops verified successfully (found 24
associated tests)
DEBUG: [POLYGLOT]
                      Problem phone-number verified successfully (found
21 associated tests)
DEBUG: [POLYGLOT]
                      Problem pig-latin verified successfully (found 22)
associated tests)
DEBUG: [POLYGLOT]
                      Problem poker verified successfully (found 37
associated tests)
DEBUG: [POLYGLOT]
                      Problem pov verified successfully (found 15
associated tests)
DEBUG: [POLYGLOT]
                      Problem proverb verified successfully (found 8
associated tests)
DEBUG: [POLYGLOT]
                      Problem react verified successfully (found 14
associated tests)
DEBUG: [POLYGLOT]
                      Problem rest-api verified successfully (found 9
associated tests)
DEBUG: [POLYGLOT]
                      Problem robot-name verified successfully (found 4
associated tests)
                      Problem scale-generator verified successfully
DEBUG: [POLYGLOT]
(found 17 associated tests)
DEBUG: [POLYGLOT]
                      Problem sgf-parsing verified successfully (found
23 associated tests)
                      Problem simple-linked-list verified successfully
DEBUG: [POLYGLOT]
(found 20 associated tests)
DEBUG: [POLYGLOT]
                      Problem transpose verified successfully (found 12
associated tests)
DEBUG: [POLYGLOT]
                      Problem tree-building verified successfully (found
13 associated tests)
DEBUG: [POLYGLOT]
                      Problem two-bucket verified successfully (found 9
associated tests)
                      Problem variable-length-quantity verified
DEBUG: [POLYGLOT]
successfully (found 26 associated tests)
DEBUG: [POLYGLOT]
                      Problem wordy verified successfully (found 25
associated tests)
                      Problem zebra-puzzle verified successfully (found
DEBUG: [POLYGLOT]
2 associated tests)
DEBUG: [POLYGLOT]
                      Problem zipper verified successfully (found 14
associated tests)
 INFO: [POLYGLOT] Successfully loaded 33 problems
 INFO: Problem react has 14 tests
 INFO: [SANDBOX] Checking gateway URL: http://135.181.71.13:8000
 INFO: [SANDBOX] Gateway URL http://135.181.71.13:8000 is valid
```

```
DEBUG: [SANDBOX] Stopping and deleting all containers
DEBUG: [SANDBOX] Stopped and deleted all containers
INFO: [SANDBOX] Building Docker image: sandbox-image
[+] Building 1.0s (11/11) FINISHED
docker:default
 => [internal] load build definition from Dockerfile
0.0s
 => => transferring dockerfile: 1.04kB
0.0s
 => [internal] load metadata for docker.io/library/python:3.11-slim
0.95
 => [internal] load .dockerignore
0.0s
 => => transferring context: 2B
0.0s
 => [1/6] FROM docker.io/library/python:3.11-
slim@sha256:b6000fc45f769f42c4c717dab2675bbb0ec6531c32a0483a2f78de0b7023
e71b
0.0s
 => => resolve docker.io/library/python:3.11-
slim@sha256:b6000fc45f769f42c4c717dab2675bbb0ec6531c32a0483a2f78de0b7023
e71b
0.0s
=> [internal] load build context
0.0s
 => => transferring context: 46B
                                         apt-get install -y --no-
 => CACHED [2/6] RUN apt-get update &&
install-recommends git patch diffutils && rm -rf /var/lib/apt/lists/
0.0s
 => CACHED [3/6] COPY sandbox requirements.txt /tmp/
sandbox requirements.txt
0.0s
 => CACHED [4/6] RUN pip install --no-cache-dir --upgrade pip &&
install --no-cache-dir -r /tmp/sandbox_requirements.txt &&
                                                               rm /tmp/
sandbox requirements.txt
                                                                  0.0s
 => CACHED [5/6] RUN pip cache purge && rm -rf /root/.cache/pip
0.0s
=> CACHED [6/6] WORKDIR /sandbox
0.0s
 => exporting to image
0.05
 => => exporting layers
0.0s
=> => writing image
sha256:6a0d37b7a80c209efc720b51333a5af41822e44e249d5749ba8c3dcb2762dbcd
0.0s
 => => naming to docker.io/library/sandbox-image
0.0s
 INFO: [SANDBOX] Successfully built Docker image: sandbox-image
DEBUG: [SANDBOX] Found sandbox network: sandbox-network
 INFO: [SANDBOX] Building Docker image: sandbox-proxy-image
[+] Building 1.0s (8/8) FINISHED
docker:default
```

```
=> [internal] load build definition from Dockerfile
0.05
=> => transferring dockerfile: 289B
0.0s
 => [internal] load metadata for docker.io/library/nginx:alpine
0.9s
 => [internal] load .dockerignore
=> => transferring context: 2B
0.0s
 => [1/3] FROM docker.io/library/
nginx:alpine@sha256:61e01287e546aac28a3f56839c136b31f590273f3b41187a36f4
6f6a03bbfe22
0.0s
=> [internal] load build context
 => => transferring context: 41B
0.0s
 => CACHED [2/3] RUN apk add --no-cache gettext
=> CACHED [3/3] COPY nginx.conf.template /tmp/nginx.conf.template
0.0s
 => exporting to image
0.0s
=> => exporting layers
0.0s
=> => writing image
sha256:b38edefd62e5475e622d31caf7dabe385f28d175b050c8ae714b02c9758742a3
0.05
 => => naming to docker.io/library/sandbox-proxy-image
0.0s
 INFO: [SANDBOX] Successfully built Docker image: sandbox-proxy-image
 INFO: [SANDBOX] Running sandbox proxy
DEBUG: [SANDBOX] Connected sandbox proxy to bridge network
DEBUG: [SANDBOX] Starting watchdog thread
DEBUG: [SANDBOX] Started watchdog thread
 INFO: [PROBLEM SUITE] Starting sandbox to run agent for problem react
DEBUG: [SANDBOX] Created sandbox temp directory for
<sandbox_tmp862lkupv>: /tmp/tmp862lkupv
DEBUG: [POLYGLOT] Copied main.py to /tmp/tmp862lkupv/repo for react
DEBUG: [POLYGLOT] Initializing git repository in /tmp/tmp862lkupv/repo
for react
DEBUG: [GIT] Initializing git repository in /tmp/tmp862lkupv/repo
DEBUG: [GIT] Initialized git repository in /tmp/tmp862lkupv/repo
DEBUG: [GIT] Adding all files in /tmp/tmp862lkupv/repo
DEBUG: [GIT] Added all files in /tmp/tmp862lkupv/repo
DEBUG: [GIT] Making initial commit: Initial commit
DEBUG: [GIT] Made initial commit: Initial commit
DEBUG: [POLYGLOT] Initialized git repository in /tmp/tmp862lkupv/repo
for react
DEBUG: [SANDBOX] Copied main Python script (/root/abstract-agent-runner/
problem_suites/AGENT_RUNNER.py) for <sandbox_tmp862lkupv>: /tmp/
tmp862lkupv/AGENT RUNNER.py
DEBUG: [SANDBOX] Written input.json for <sandbox_tmp862lkupv>: /tmp/
tmp862lkupv/input.json
DEBUG: [SANDBOX] Running sandbox <sandbox_tmp862lkupv>
```

```
DEBUG: [SANDBOX] Started sandbox runner thread for <sandbox tmp862lkupv>
DEBUG: [PROBLEM SUITE] Started sandbox to run agent for problem react
DEBUG: [DOCKER:sandbox_tmp862lkupv] [AGENT_RUNNER] Entered main()
DEBUG: [DOCKER:sandbox_tmp862lkupv] [AGENT_RUNNER] Reading input.json
DEBUG: [DOCKER:sandbox tmp862lkupv] [AGENT RUNNER] Read input.json
DEBUG: [DOCKER:sandbox tmp862lkupv] [AGENT RUNNER] Loading /sandbox/
agent.py
DEBUG: [DOCKER:sandbox tmp862lkupv] [AGENT RUNNER] Loaded /sandbox/
agent.py
DEBUG: [DOCKER:sandbox_tmp862lkupv] [AGENT_RUNNER] agent_main() function
found in /sandbox/agent.pv
DEBUG: [DOCKER:sandbox tmp862lkupv] [AGENT RUNNER] Entering agent's
agent main()
DEBUG: [DOCKER:sandbox tmp862lkupv]
DEBUG: [DOCKER:sandbox_tmp862lkupv]
·
_____
DEBUG: [DOCKER:sandbox_tmp862lkupv] * AGENT STARTING
DEBUG: [DOCKER:sandbox tmp862lkupv]
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:38:58,250 - agent -
INFO - [AGENT-START] Run ID: 8366b657-e085-4a65-b899-ef494c437792
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:38:58.250 - agent -
INFO - [AGENT-START] Repo directory: /sandbox/repo
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:38:58,250 - agent -
INFO - [AGENT-START] Test mode: False
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:38:58,250 - agent -
INFO - [AGENT-START] Timeout: 1800s, Max steps: 400
DEBUG: [DOCKER:sandbox tmp862lkupv] [DEBUG] Starting git initialization
check...
DEBUG: [DOCKER:sandbox_tmp862lkupv] [DEBUG] Work directory: /sandbox/
DEBUG: [DOCKER:sandbox_tmp862lkupv] [DEBUG] Before chdir - pwd shows: /
sandbox/repo
DEBUG: [DOCKER:sandbox tmp862lkupv] [DEBUG] After chdir - pwd shows: /
sandbox/repo
DEBUG: [DOCKER:sandbox tmp862lkupv] [DEBUG] Git repository already
exists
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:38:58,258 - agent -
INFO - [AGENT-START] Problem statement length: 728 chars
DEBUG: [DOCKER:sandbox_tmp862lkupv]
DEBUG: [DOCKER:sandbox_tmp862lkupv]
DEBUG: [DOCKER:sandbox_tmp862lkupv] Q DETERMINING PROBLEM TYPE...
DEBUG: [DOCKER:sandbox tmp862lkupv]
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:38:58,258 - agent -
DEBUG - [REQUEST] run id: 8366b657-e085-4a65-b899-ef494c437792, model:
Qwen/Qwen3-Coder-480B-A35B-Instruct-FP8
DEBUG: [DOCKER:sandbox_tmp862lkupv] [CONTEXT] Messages fit: 171/219340
tokens
```

```
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:38:59,675 - agent -
INFO - [PROBLEM-TYPE] Determined: CREATE
DEBUG: [DOCKER:sandbox_tmp862lkupv] ✓ Problem type: CREATE
DEBUG: [DOCKER:sandbox_tmp862lkupv]
DEBUG: [DOCKER:sandbox tmp862lkupv]
DEBUG: [DOCKER:sandbox tmp862lkupv] WEW CREATE TASK DETECTED — STARTING
CREATE WORKFLOW
DEBUG: [DOCKER:sandbox tmp862lkupv]
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:38:59,675 - agent -
INFO - [WORKFLOW] Starting CREATE task workflow
DEBUG: [DOCKER:sandbox_tmp862lkupv]
DEBUG: [DOCKER:sandbox tmp862lkupv]
DEBUG: [DOCKER:sandbox_tmp862lkupv] | NEW CREATE TASK WORKFLOW STARTING
DEBUG: [DOCKER:sandbox_tmp862lkupv]
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:38:59,675 - agent -
INFO - [CREATE] Starting CREATE task workflow
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:38:59,675 - agent -
INFO - [CREATE] Problem statement length: 728 chars
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:38:59,675 - agent -
INFO - [CREATE] Step 1: Generating code skeleton
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:38:59,676 - agent -
INFO - [CREATE] Code skeleton generated: 304 chars
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:38:59,676 - agent -
INFO - [CREATE] Step 2: Generating initial solution
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:38:59,676 - agent -
INFO - Starting multi-step reasoning solution generation
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:38:59,676 - agent -
DEBUG - [REQUEST] run id: 8366b657-e085-4a65-b899-ef494c437792, model:
Qwen/Qwen3-Coder-480B-A35B-Instruct-FP8
DEBUG: [DOCKER:sandbox_tmp862lkupv] [CONTEXT] Messages fit: 618/219340
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:02,285 - agent -
INFO - Multi-step reasoning solution generation completed successfully
with infinite loop validation
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:02,285 - agent -
INFO - Generated initial solution successfully using multi-step
reasoning
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:02.285 - agent -
INFO - [CREATE] Initial solution generated: 1743 chars
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:39:02,285 - agent -
INFO - [CREATE] Step 3: Extracting and writing solution files
DEBUG: [DOCKER:sandbox_tmp862lkupv] Created file: ./main.py
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:39:02,285 - agent -
INFO - [CREATE] Created 1 solution files
```

```
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:02,285 - agent -
INFO - [CREATE] Step 4: Generating test files
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:02,285 - agent -
INFO - Starting test cases generation
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:02,285 - agent -
DEBUG - [REQUEST] run id: 8366b657-e085-4a65-b899-ef494c437792, model:
Owen/Owen3-Coder-480B-A35B-Instruct-FP8
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 332/219340
tokens
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:39:15,579 - agent -
INFO - Step 1 - Testcase Generation completed
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:39:15,579 - agent -
DEBUG - [REQUEST] run_id: 8366b657-e085-4a65-b899-ef494c437792, model:
Qwen/Qwen3-Coder-480B-A35B-Instruct-FP8
DEBUG: [DOCKER:sandbox_tmp862lkupv] [CONTEXT] Messages fit: 652/219340
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:24,983 - agent -
INFO - Step 2 - Testcase check completed
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:39:24,983 - agent -
INFO - Multi-step reasoning solution generation completed successfully
with infinite loop validation
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:24,983 - agent -
INFO - Generated testcases successfully using multi-step reasoning
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:24,983 - agent -
INFO - [CREATE] Test cases generated: 5412 chars
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:39:24,983 - agent -
INFO - [CREATE] Step 5: Extracting and writing test files
DEBUG: [DOCKER:sandbox_tmp862lkupv] Created file: ./
test reactive system.py
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:24,983 - agent -
INFO - [CREATE] Created 1 test files
DEBUG: [DOCKER:sandbox_tmp862lkupv] ✓ Created 1 test files
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:24,983 - agent -
INFO - [CREATE] Time spent: 25.3s, Remaining timeout: 1714.7s
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:24,983 - agent -
INFO - [CREATE] Step 6: Starting iterative FIX workflow for refinement
DEBUG: [DOCKER:sandbox_tmp862lkupv]
DEBUG: [DOCKER:sandbox tmp862lkupv]
DEBUG: [DOCKER:sandbox tmp862lkupv] \ Starting iterative refinement
workflow...
DEBUG: [DOCKER:sandbox tmp862lkupv]
DEBUG: [DOCKER:sandbox_tmp862lkupv]
DEBUG: [DOCKER:sandbox_tmp862lkupv]
DEBUG: [DOCKER:sandbox_tmp862lkupv] | \ ITERATIVE FIX WORKFLOW STARTING
DEBUG: [DOCKER:sandbox tmp862lkupv]
```

```
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:24,984 - agent -
INFO - [ITERATIVE] Starting iterative FIX workflow
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:39:24,984 - agent -
INFO - [ITERATIVE] Run ID: 8366b657-e085-4a65-b899-ef494c437792
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:24,984 - agent -
INFO - [ITERATIVE] Max steps: 30, Timeout: 1714.691801071167s
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:39:24,984 - agent -
INFO - [ITERATIVE] Test runner: unittest (mode: FILE)
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:39:24,984 - agent -
INFO - State file not found at .agent_state.json. Starting with a fresh
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:24,984 - agent -
INFO - [ITERATIVE] Loaded COT state: 0 existing thoughts
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:24,986 - agent -
INFO - [ITERATIVE] Initialized tool manager with 13 tools
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:39:24,986 - agent -
INFO - [ITERATIVE] Workflow started at 19:39:24
DEBUG: [DOCKER:sandbox_tmp862lkupv] 🚀 Starting iterative workflow (max
30 steps, 1714.691801071167s timeout)
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:39:24,986 - agent -
INFO - [RUN:8366b657-e085-4a65-b899-ef494c437792] Step 1/30
DEBUG: [DOCKER:sandbox_tmp862lkupv] [CONTEXT] Messages fit: 2364/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:24.986 - agent -
DEBUG - [REOUEST] run id: 8366b657-e085-4a65-b899-ef494c437792, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 2364/107929
tokens
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:39:31,218 - agent -
INFO - LLM proposed action: search in all files content with args:
{'search term': 'reactive'}
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:39:31,219 - agent -
INFO - Tool observation (first 300 chars): ./
test_reactive_system.py:4:class
TestReactiveSvstem(unittest.TestCase):...
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:31,219 - agent -
INFO - [RUN:8366b657-e085-4a65-b899-ef494c437792] Step 2/30
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 2429/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:31,220 - agent -
DEBUG - [REQUEST] run id: 8366b657-e085-4a65-b899-ef494c437792, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox_tmp862lkupv] [CONTEXT] Messages fit: 2429/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:35,494 - agent -
INFO - LLM proposed action: get_file_content with args: {'file_path':
'./test_reactive_system.py'}
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:35,494 - agent -
INFO - Tool observation (first 300 chars): import unittest
DEBUG: [DOCKER:sandbox tmp862lkupv] from main import InputCell,
ComputeCell
DEBUG: [DOCKER:sandbox_tmp862lkupv]
DEBUG: [DOCKER:sandbox tmp862lkupv] class
TestReactiveSystem(unittest.TestCase):
DEBUG: [DOCKER:sandbox_tmp862lkupv]
```

```
DEBUG: [DOCKER:sandbox tmp862lkupv]
                                        def
test input cells have a value(self):
DEBUG: [DOCKER:sandbox tmp862lkupv]
                                            input cell = InputCell(10)
DEBUG: [DOCKER:sandbox_tmp862lkupv]
self.assertEqual(input cell.value, 10)
DEBUG: [DOCKER:sandbox tmp862lkupv]
DEBUG: [DOCKER:sandbox_tmp862lkupv]
                                        def
test compute cells calculate initial value(self):
DEBUG: [DOCKER:sandbox_tmp862lkupv]
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:39:35,494 - agent -
INFO - [RUN:8366b657-e085-4a65-b899-ef494c437792] Step 3/30
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 2853/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:35,495 - agent -
DEBUG - [REQUEST] run_id: 8366b657-e085-4a65-b899-ef494c437792, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 2853/107929
tokens
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:39:38,485 - agent -
INFO - LLM proposed action: search_in_all_files_content with args:
{'search term': 'main.py'}
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:38,486 - agent -
INFO - Tool observation (first 300 chars): 'main.py' not found in the
codebase....
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:39:38,486 - agent -
INFO - [RUN:8366b657-e085-4a65-b899-ef494c437792] Step 4/30
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 2918/107929
tokens
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:39:38,486 - agent -
DEBUG - [REOUEST] run id: 8366b657-e085-4a65-b899-ef494c437792, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 2918/107929
tokens
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:39:41,718 - agent -
INFO - LLM proposed action: search in all files content with args:
{'search_term': '.py'}
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:41,719 - agent -
INFO - Tool observation (first 300 chars): '.py' not found in the
codebase....
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:41,719 - agent -
INFO - [RUN:8366b657-e085-4a65-b899-ef494c437792] Step 5/30
DEBUG: [DOCKER:sandbox_tmp862lkupv] [CONTEXT] Messages fit: 2986/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:41,719 - agent -
DEBUG - [REQUEST] run_id: 8366b657-e085-4a65-b899-ef494c437792, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox_tmp862lkupv] [CONTEXT] Messages fit: 2986/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:44.391 - agent -
INFO - LLM proposed action: search_in_all_files_content with args:
{'search_term': 'class'}
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:44,392 - agent -
INFO - Tool observation (first 300 chars): ./main.py:1:class InputCell:
DEBUG: [DOCKER:sandbox_tmp862lkupv] ./main.py:15:class ComputeCell:
DEBUG: [DOCKER:sandbox tmp862lkupv] ./test reactive system.py:4:class
TestReactiveSystem(unittest.TestCase):...
```

```
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:44,392 - agent -
INFO - [RUN:8366b657-e085-4a65-b899-ef494c437792] Step 6/30
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 3035/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:44,393 - agent -
DEBUG - [REQUEST] run id: 8366b657-e085-4a65-b899-ef494c437792, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 3035/107929
tokens
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:39:47,413 - agent -
INFO - LLM proposed action: get file content with args: {'file path':
'./main.pv'}
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:39:47,413 - agent -
INFO - Tool observation (first 300 chars): class InputCell:
DEBUG: [DOCKER:sandbox_tmp862lkupv]
                                      def __init__(self,
initial value):
                                           self.value = initial_value
DEBUG: [DOCKER:sandbox tmp862lkupv]
DEBUG: [DOCKER:sandbox_tmp862lkupv]
                                           self.dependents = set()
DEBUG: [DOCKER:sandbox_tmp862lkupv]
                                           self.callbacks = set()
DEBUG: [DOCKER:sandbox_tmp862lkupv]
DEBUG: [DOCKER:sandbox tmp862lkupv]
                                       def set_value(self, new_value):
DEBUG: [DOCKER:sandbox_tmp862lkupv]
                                           if self.value != new value:
DEBUG: [DOCKER:sandbox tmp862lkupv]
                                               self.value = new value
DEBUG: [DOCKER:sandbox_tmp862lkupv]
                                               # Notify all dependents
of...
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:39:47,414 - agent -
DEBUG - Successfully saved agent state to .agent state.json
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:39:47,414 - agent -
INFO - [RUN:8366b657-e085-4a65-b899-ef494c437792] Step 7/30
DEBUG: [DOCKER:sandbox_tmp862lkupv] [CONTEXT] Messages fit: 3228/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:47,414 - agent -
DEBUG - [REOUEST] run id: 8366b657-e085-4a65-b899-ef494c437792, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 3228/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:50,312 - agent -
INFO - LLM proposed action: run repo tests with args: {'file paths':
['./test_reactive_system.py']}
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:39:50,312 - agent -
INFO - Running test command: python -m unittest test_reactive_system
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:39:50,428 - agent -
INFO - Tool observation (first 300 chars): EEE.EEEEEE.E
DEBUG: [DOCKER:sandbox tmp862lkupv]
DEBUG: [DOCKER:sandbox tmp862lkupv] ERROR:
test_callbacks_can_be_added_and_removed
(test_reactive_system.TestReactiveSystem.test_callbacks_can_be_added_and
removed)
DEBUG: [DOCKER:sandbox tmp862lkupv]
DEBUG: [DOCKER:sandbox tmp862lkupv] Traceback (most ...
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:50,429 - agent -
INFO - [RUN:8366b657-e085-4a65-b899-ef494c437792] Step 8/30
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 3716/107929
tokens
```

```
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:50,429 - agent -
DEBUG - [REQUEST] run id: 8366b657-e085-4a65-b899-ef494c437792, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox_tmp862lkupv] [CONTEXT] Messages fit: 3716/107929
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:56,773 - agent -
INFO - LLM proposed action: apply_code_edit with args: {'file_path': './
main.py', 'search': ' @property\n def value(self):\n
                                 self._cached_value =
self._needs_update:\n
self.compute_function([input_cell.value for input_cell in self.inputs])
              self. needs update = False\n
                                                  return
self._cached_value', 'replace': '
                                   @property\n
                                                    def value(self):\n
if self._needs_update:\n
                                    self._cached_value =
self.compute_function([input_cell.value for input_cell in self.inputs])
              self._needs_update = False\n
                                                 return
self. cached value'}
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:56,773 - agent -
INFO - Tool observation (first 300 chars): Error: You must get approval
before applying edits. Call get_approval_for_solution tool first....
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:39:56,774 - agent -
INFO - [RUN:8366b657-e085-4a65-b899-ef494c437792] Step 9/30
DEBUG: [DOCKER:sandbox_tmp862lkupv] [CONTEXT] Messages fit: 3852/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:39:56,774 - agent -
DEBUG - [REQUEST] run_id: 8366b657-e085-4a65-b899-ef494c437792, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox_tmp862lkupv] [CONTEXT] Messages fit: 3852/107929
tokens
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:40:04,095 - agent -
INFO - LLM proposed action: get_approval_for_solution with args:
{'solutions': ['Solution 1: Modify the ComputeCell to pass cell objects
to the compute function instead of values. This means changing the value
property to pass `self.inputs` directly to the compute function,
allowing the lambda functions in the tests to access `.value` on the
cell objects.\n\nSolution 2: Keep the current implementation but modify
the test expectations. However, since I cannot modify the test files,
this approach is not viable. The tests clearly expect cell objects to be
passed to the compute function.'], 'selected_solution': 1,
'reason_for_selection': 'Solution 1 is the correct approach because the
test functions are written to expect cell objects as inputs to their
lambda functions. The error messages show that the tests are trying to
access `.value` on what they expect to be cell objects. By passing the
cell objects themselves instead of their values, the compute functions
can access the `.value` property as intended in the tests.'}
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:40:04,095 - agent -
INFO - Solutions proposed. Selected index: 1. Reason: Solution 1 is the
correct approach because the test functions are written to expect cell
objects as inputs to their lambda functions. The error messages show
that the tests are trying to access `.value` on what they expect to be
cell objects. By passing the cell objects themselves instead of their
values, the compute functions can access the `.value` property as
intended in the tests.
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:40:04,095 - agent -
INFO - Tool observation (first 300 chars): Error: solutions must be a
list with at least 2 items....
```

```
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:40:04,095 - agent -
INFO - [RUN:8366b657-e085-4a65-b899-ef494c437792] Step 10/30
DEBUG: [DOCKER:sandbox_tmp862lkupv] [CONTEXT] Messages fit: 4112/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:40:04,096 - agent -
DEBUG - [REQUEST] run id: 8366b657-e085-4a65-b899-ef494c437792, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 4112/107929
tokens
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:40:11,792 - agent -
INFO - LLM proposed action: get approval for solution with args:
{'solutions': ['Solution 1: Modify the ComputeCell to pass cell objects
to the compute function instead of values. This means changing the value
property to pass `self.inputs` directly to the compute function,
allowing the lambda functions in the tests to access `.value` on the
cell objects.', 'Solution 2: Create a wrapper approach where the compute
function receives cell objects but internally handles value extraction.
This would involve modifying the compute function call to maintain
backward compatibility while supporting the test expectations.'],
'selected_solution': 1, 'reason_for_selection': 'Solution 1 is the
correct approach because the test functions are written to expect cell
objects as inputs to their lambda functions. The error messages show
that the tests are trying to access `.value` on what they expect to be
cell objects. By passing the cell objects themselves instead of their
values, the compute functions can access the `.value` property as
intended in the tests.'}
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:40:11,792 - agent -
INFO - Solutions proposed. Selected index: 1. Reason: Solution 1 is the
correct approach because the test functions are written to expect cell
objects as inputs to their lambda functions. The error messages show
that the tests are trying to access `.value` on what they expect to be
cell objects. By passing the cell objects themselves instead of their
values, the compute functions can access the `.value` property as
intended in the tests.
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:40:11,792 - agent -
INFO - Tool observation (first 300 chars): Approved...
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:40:11,792 - agent -
INFO - [RUN:8366b657-e085-4a65-b899-ef494c437792] Step 11/30
DEBUG: [DOCKER:sandbox_tmp862lkupv] [CONTEXT] Messages fit: 4361/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:40:11,793 - agent -
DEBUG - [REQUEST] run_id: 8366b657-e085-4a65-b899-ef494c437792, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 4361/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:40:22,552 - agent -
INFO - LLM proposed action: apply_code_edit with args: {'file_path': './
main.py', 'search': ' @property\n def value(self):\n
                                                                 if
                                 self. cached value =
self. needs update:\n
self.compute_function([input_cell.value for input_cell in self.inputs])
              self._needs_update = False\n
\n
                                                  return
self._cached_value', 'replace': '
                                   @property\n def value(self):\n
if self. needs update:\n
                                  self. cached value =
self.compute_function(self.inputs)\n
                                                self._needs_update =
             return self. cached value'}
False\n
```

```
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:40:22,553 - agent -
INFO - Tool observation (first 300 chars): ok, code edit applied
successfully...
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:40:22,554 - agent -
DEBUG - Successfully saved agent state to .agent state.json
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:40:22,554 - agent -
INFO - [RUN:8366b657-e085-4a65-b899-ef494c437792] Step 12/30
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 4322/107929
tokens
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:40:22,555 - agent -
DEBUG - [REOUEST] run id: 8366b657-e085-4a65-b899-ef494c437792. model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox_tmp862lkupv] [CONTEXT] Messages fit: 4322/107929
tokens
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:40:31,094 - agent -
INFO - LLM proposed action: run_repo_tests with args: {'file_paths':
['./test reactive system.py']}
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:40:31,094 - agent -
INFO - Running test command: python -m unittest test_reactive_system
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:40:31,155 - agent -
INFO - Tool observation (first 300 chars): FFF.F.F.F.F.
DEBUG: [DOCKER:sandbox tmp862lkupv]
______
DEBUG: [DOCKER:sandbox_tmp862lkupv] FAIL:
test_callbacks_can_be_added_and_removed
(test_reactive_system.TestReactiveSystem.test_callbacks_can_be_added_and
removed)
DEBUG: [DOCKER:sandbox tmp862lkupv]
DEBUG: [DOCKER:sandbox tmp862lkupv] Traceback (most r...
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:40:31,155 - agent -
INFO - [RUN:8366b657-e085-4a65-b899-ef494c437792] Step 13/30
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 3872/107929
tokens
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:40:31,156 - agent -
DEBUG - [REQUEST] run_id: 8366b657-e085-4a65-b899-ef494c437792, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 3872/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:40:38,241 - agent -
INFO - LLM proposed action: get_file_content with args: {'file_path':
'./main.py'}
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:40:38.241 - agent -
INFO - Tool observation (first 300 chars): class InputCell:
initial value):
DEBUG: [DOCKER:sandbox_tmp862lkupv]
                                          self.value = initial value
DEBUG: [DOCKER:sandbox_tmp862lkupv]
                                          self.dependents = set()
DEBUG: [DOCKER:sandbox tmp862lkupv]
                                          self.callbacks = set()
DEBUG: [DOCKER:sandbox tmp862lkupv]
                                      def set_value(self, new_value):
DEBUG: [DOCKER:sandbox_tmp862lkupv]
DEBUG: [DOCKER:sandbox tmp862lkupv]
                                          if self.value != new value:
DEBUG: [DOCKER:sandbox tmp862lkupv]
                                              self.value = new value
                                              # Notify all dependents
DEBUG: [DOCKER:sandbox tmp862lkupv]
of...
```

```
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:40:38,241 - agent -
INFO - [RUN:8366b657-e085-4a65-b899-ef494c437792] Step 14/30
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 4113/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:40:38,242 - agent -
DEBUG - [REQUEST] run id: 8366b657-e085-4a65-b899-ef494c437792, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 4113/107929
tokens
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:40:47,890 - agent -
INFO - LLM proposed action: apply code edit with args: {'file path': './
self._cached_value if not self._needs_update else None\n
self. needs update = True\n
new value = self.value\n
                                                             \n
# If value changed, notify dependents and callbacks\n
old_value != new_value:\n for dependent in self.dependents:\n
dependent__update()\n
                             for callback in self.callbacks:\n
callback(new_value)', 'replace': '    def _update(self):\n
Store the old value before recomputing\n old_value =
self._cached_value\n \n
                              # Mark as needing update and
                   compute new value\n
= self.value\n
and callbacks\n if old_value != new_value:\n
dependent in self.dependents:\n
                                         dependent__update()\n
for callback in self.callbacks:\n
                                             callback(new_value)'}
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:40:47,891 - agent -
INFO - Tool observation (first 300 chars): ok, code edit applied
successfully...
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:40:47,891 - agent -
INFO - [RUN:8366b657-e085-4a65-b899-ef494c437792] Step 15/30
DEBUG: [DOCKER:sandbox_tmp862lkupv] [CONTEXT] Messages fit: 4296/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:40:47,891 - agent -
DEBUG - [REQUEST] run_id: 8366b657-e085-4a65-b899-ef494c437792, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox_tmp862lkupv] [CONTEXT] Messages fit: 4296/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:40:54,007 - agent -
INFO - LLM proposed action: run_repo_tests with args: {'file_paths':
['./test_reactive_system.py']}
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:40:54,007 - agent -
INFO - Running test command: python -m unittest test_reactive_system
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:40:54,070 - agent -
INFO - Tool observation (first 300 chars): FFF.F.F.F.
DEBUG: [DOCKER:sandbox_tmp862lkupv]
______
DEBUG: [DOCKER:sandbox_tmp862lkupv] FAIL:
test_callbacks_can_be_added_and_removed
(test reactive system.TestReactiveSystem.test callbacks can be added and
removed)
DEBUG: [DOCKER:sandbox_tmp862lkupv]
DEBUG: [DOCKER:sandbox tmp862lkupv] Traceback (most r...
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:40:54,070 - agent -
INFO - [RUN:8366b657-e085-4a65-b899-ef494c437792] Step 16/30
```

```
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 4653/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:40:54,071 - agent -
DEBUG - [REQUEST] run_id: 8366b657-e085-4a65-b899-ef494c437792, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 4653/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:40:58,497 - agent -
INFO - LLM proposed action: get_file_content with args: {'file_path':
'./test_reactive_system.py', 'search_start_line': 18, 'search_end_line':
28}
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:40:58,497 - agent -
INFO - Tool observation (first 300 chars): Lines 18-28 of ./
test reactive system.py:
DEBUG: [DOCKER:sandbox_tmp862lkupv]
                                           compute cell =
ComputeCell([input_cell1, input_cell2], lambda inputs: inputs[0].value +
inputs[1].value * 10)
DEBUG: [DOCKER:sandbox_tmp862lkupv]
self.assertEqual(compute cell.value, 21)
DEBUG: [DOCKER:sandbox tmp862lkupv]
DEBUG: [DOCKER:sandbox tmp862lkupv]
                                        def
test compute cells update value when dependencies are changed(self):
DEBUG: [DOCKER:sandbox tmp862lkupv]
                                            i...
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:40:58,499 - agent -
DEBUG - Successfully saved agent state to .agent_state.json
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:40:58,499 - agent -
INFO - [RUN:8366b657-e085-4a65-b899-ef494c437792] Step 17/30
DEBUG: [DOCKER:sandbox_tmp862lkupv] [CONTEXT] Messages fit: 4782/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:40:58,499 - agent -
DEBUG - [REQUEST] run_id: 8366b657-e085-4a65-b899-ef494c437792, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 4782/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:41:03,462 - agent -
INFO - LLM proposed action: search_in_specified_file_v2 with args:
{'file_path': './test_reactive_system.py', 'search_term': '.value ='}
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:41:03,466 - agent -
INFO - Tool observation (first 300 chars): (lines 21-25):
DEBUG: [DOCKER:sandbox tmp862lkupv]
test_compute_cells_update_value_when_dependencies_are_changed(self):
DEBUG: [DOCKER:sandbox_tmp862lkupv]
                                            input_cell = InputCell(1)
DEBUG: [DOCKER:sandbox tmp862lkupv]
                                            compute cell =
ComputeCell([input cell], lambda inputs: inputs[0].value + 1)
DEBUG: [DOCKER:sandbox_tmp862lkupv]
                                            input_cell.value = 2
DEBUG: [DOCKER:sandbox tmp862lkupv]
self.assertEqual(compute_cell.value, 3)
DEBUG: [DOCKER:sandbox_tmp862lkupv]
DEBUG: [DOCKER:sandbox tmp862lkupv] (lines 27-3...
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:41:03,466 - agent -
INFO - [RUN:8366b657-e085-4a65-b899-ef494c437792] Step 18/30
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 4936/107929
tokens
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:41:03,467 - agent -
DEBUG - [REQUEST] run id: 8366b657-e085-4a65-b899-ef494c437792, model:
zai-org/GLM-4.5-FP8
```

```
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 4936/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:41:10,831 - agent -
INFO - LLM proposed action: apply_code_edit with args: {'file_path': './
main.py', 'search': 'class InputCell:\n def init (self,
initial value):\n
                       self.value = initial value\n
self.dependents = set()\n
                            self.callbacks = set()\n\n
set value(self, new value):\n
                                  if self.value != new value:\n
self.value = new_value\n
                                 # Notify all dependents of the
change\n
                  for dependent in self.dependents:\n
dependent._update()', 'replace': 'class InputCell:\n
__init__(self, initial_value):\n
                                     self._value = initial_value\n
                          self.callbacks = set()\n\n
self.dependents = set()\n
@property\n def value(self):\n
                                      return self._value\n\n
@value.setter\n def value(self, new_value):\n
                                                if self._value !
                         self._value = new_value\n
= new value:\n
                                                            # Notify
all dependents of the change\n
                                        for dependent in
self.dependents:\n
                                dependent__update()\n\n
                                                         def
                              self.value = new_value # Use the
set_value(self, new_value):\n
property setter'}
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:41:10,831 - agent -
INFO - Tool observation (first 300 chars): ok, code edit applied
successfully...
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:41:10,832 - agent -
INFO - [RUN:8366b657-e085-4a65-b899-ef494c437792] Step 19/30
DEBUG: [DOCKER:sandbox_tmp862lkupv] [CONTEXT] Messages fit: 4973/107929
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:41:10,832 - agent -
DEBUG - [REQUEST] run id: 8366b657-e085-4a65-b899-ef494c437792, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox_tmp862lkupv] [CONTEXT] Messages fit: 4973/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:41:14,860 - agent -
INFO - LLM proposed action: run_repo_tests with args: {'file_paths':
['./test reactive system.py']}
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:41:14,860 - agent -
INFO - Running test command: python -m unittest test_reactive_system
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:41:14,918 - agent -
INFO - Tool observation (first 300 chars): EEE.E..E...E
DEBUG: [DOCKER:sandbox tmp862lkupv]
______
DEBUG: [DOCKER:sandbox_tmp862lkupv] ERROR:
test callbacks can be added and removed
(test reactive system.TestReactiveSystem.test callbacks can be added and
removed)
DEBUG: [DOCKER:sandbox tmp862lkupv]
DEBUG: [DOCKER:sandbox_tmp862lkupv] Traceback (most ...
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:41:14.919 - agent -
INFO - [RUN:8366b657-e085-4a65-b899-ef494c437792] Step 20/30
DEBUG: [DOCKER:sandbox_tmp862lkupv] [CONTEXT] Messages fit: 5368/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:41:14,919 - agent -
DEBUG - [REOUEST] run id: 8366b657-e085-4a65-b899-ef494c437792, model:
zai-org/GLM-4.5-FP8
```

```
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 5368/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:41:20,151 - agent -
INFO - LLM proposed action: apply_code_edit with args: {'file_path': './
main.py', 'search': '
                               for callback in self.callbacks:\n
callback(new_value)', 'replace': '
                                             for callback in
self.callbacks:\n
                                callback(self)'}
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:41:20,151 - agent -
INFO - Tool observation (first 300 chars): ok, code edit applied
successfully...
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:41:20.151 - agent -
INFO - [RUN:8366b657-e085-4a65-b899-ef494c437792] Step 21/30
DEBUG: [DOCKER:sandbox_tmp862lkupv] [CONTEXT] Messages fit: 5176/107929
tokens
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:41:20,152 - agent -
DEBUG - [REOUEST] run id: 8366b657-e085-4a65-b899-ef494c437792, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox_tmp862lkupv] [CONTEXT] Messages fit: 5176/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:41:25,161 - agent -
INFO - LLM proposed action: run_repo_tests with args: {'file_paths':
['./test reactive system.py']}
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:41:25,162 - agent -
INFO - Running test command: python -m unittest test_reactive_system
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:41:25,220 - agent -
INFO - Tool observation (first 300 chars): ....F......
DEBUG: [DOCKER:sandbox tmp862lkupv]
·
DEBUG: [DOCKER:sandbox tmp862lkupv] FAIL:
test_callbacks_should_only_be_called_once_even_if_multiple_dependencies_
change
(test reactive system.TestReactiveSystem.test callbacks should only be c
alled once even if multiple dependencies change)
DEBUG: [DOCKER:sandbox_tmp862lkupv] -----
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:41:25,222 - agent -
DEBUG - Successfully saved agent state to .agent_state.json
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:41:25,222 - agent -
INFO - [RUN:8366b657-e085-4a65-b899-ef494c437792] Step 22/30
DEBUG: [DOCKER:sandbox_tmp862lkupv] [CONTEXT] Messages fit: 5265/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:41:25,222 - agent -
DEBUG - [REQUEST] run_id: 8366b657-e085-4a65-b899-ef494c437792, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 5265/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:41:33,347 - agent -
INFO - LLM proposed action: get_approval_for_solution with args:
{'solutions': ["Solution 1: Implement a batching mechanism where
callbacks are only called after all pending updates have been processed.
This would involve tracking when updates are in progress and only
calling callbacks when the system reaches a stable state.\n\nSolution 2:
Implement a value comparison mechanism where callbacks are only called
if the final computed value is different from the value before any of
the dependency changes started. This would require storing the 'stable'
value before any updates and only calling callbacks when the final
stable value differs from that initial stable value."],
```

```
'selected_solution': 2, 'reason_for_selection': 'Solution 2 is more
appropriate for this reactive system because it ensures callbacks are
only called when the final computed value actually changes, regardless
of how many intermediate updates occurred. This matches the test
expectation where the callback should only be called once with the final
value (6) even though two input cells changed. The approach is simpler
and more deterministic than trying to batch updates.'}
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:41:33,347 - agent -
INFO - Solutions proposed. Selected index: 2. Reason: Solution 2 is more
appropriate for this reactive system because it ensures callbacks are
only called when the final computed value actually changes, regardless
of how many intermediate updates occurred. This matches the test
expectation where the callback should only be called once with the final
value (6) even though two input cells changed. The approach is simpler
and more deterministic than trying to batch updates.
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:41:33,347 - agent -
INFO - Tool observation (first 300 chars): Error: solutions must be a
list with at least 2 items....
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:41:33,347 - agent -
INFO - [RUN:8366b657-e085-4a65-b899-ef494c437792] Step 23/30
DEBUG: [DOCKER:sandbox_tmp862lkupv] [CONTEXT] Messages fit: 5227/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:41:33,348 - agent -
DEBUG - [REQUEST] run_id: 8366b657-e085-4a65-b899-ef494c437792, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox_tmp862lkupv] [CONTEXT] Messages fit: 5227/107929
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:41:44,331 - agent -
INFO - LLM proposed action: get_approval_for_solution with args:
{'solutions': ['Solution 1: Implement a batching mechanism where
callbacks are only called after all pending updates have been processed.
This would involve tracking when updates are in progress and only
calling callbacks when the system reaches a stable state.', "Solution 2:
Implement a value comparison mechanism where callbacks are only called
if the final computed value is different from the value before any of
the dependency changes started. This would require storing the 'stable'
value before any updates and only calling callbacks when the final
stable value differs from that initial stable value."],
'selected_solution': 2, 'reason_for_selection': 'Solution 2 is more
appropriate for this reactive system because it ensures callbacks are
only called when the final computed value actually changes, regardless
of how many intermediate updates occurred. This matches the test
expectation where the callback should only be called once with the final
value (6) even though two input cells changed. The approach is simpler
and more deterministic than trying to batch updates.'}
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:41:44,331 - agent -
INFO - Solutions proposed. Selected index: 2. Reason: Solution 2 is more
appropriate for this reactive system because it ensures callbacks are
only called when the final computed value actually changes, regardless
of how many intermediate updates occurred. This matches the test
expectation where the callback should only be called once with the final
value (6) even though two input cells changed. The approach is simpler
and more deterministic than trying to batch updates.
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:41:44,331 - agent -
INFO - Tool observation (first 300 chars): Approved...
```

```
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:41:44,331 - agent -
INFO - [RUN:8366b657-e085-4a65-b899-ef494c437792] Step 24/30
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 5510/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:41:44,332 - agent -
DEBUG - [REQUEST] run id: 8366b657-e085-4a65-b899-ef494c437792, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 5510/107929
tokens
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:41:54,597 - agent -
INFO - LLM proposed action: apply code edit with args: {'file path': './
main.py', 'search': ' def _update(self):\n # Store the old
                                old_value = self._cached_value\n
value before recomputing\n
         # Mark as needing update and compute new value\n
\n
self._needs_update = True\n
                                new_value = self.value\n
# If value changed, notify dependents and callbacks\n
old value != new value:\n
                                   for dependent in self.dependents:\n
                               for callback in self.callbacks:\n
dependent__update()\n
callback(self)', 'replace': '
                               def _update(self):\n
                                                          # Store the
old value before recomputing\n
                                    old_value = self._cached_value\n
         # Mark as needing update and compute new value\n
self. needs update = True\n
                             new_value = self.value\n
# If value changed, notify dependents first\n if old_value !=
new value:\n
                      for dependent in self.dependents:\n
dependent__update()\n
                               # Only call callbacks after all
                                        for callback in
dependents have been updated\n
self.callbacks:\n
                               callback(self)'}
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:41:54,597 - agent -
INFO - Tool observation (first 300 chars): ok, code edit applied
successfully...
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:41:54,597 - agent -
INFO - [RUN:8366b657-e085-4a65-b899-ef494c437792] Step 25/30
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 5392/107929
tokens
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:41:54,598 - agent -
DEBUG - [REQUEST] run_id: 8366b657-e085-4a65-b899-ef494c437792, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 5392/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:42:00,386 - agent -
INFO - LLM proposed action: run_repo_tests with args: {'file_paths':
['./test_reactive_system.py']}
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:42:00,386 - agent -
INFO - Running test command: python -m unittest test_reactive_system
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:42:00,447 - agent -
INFO - Tool observation (first 300 chars): ....F......
DEBUG: [DOCKER:sandbox_tmp862lkupv]
______
DEBUG: [DOCKER:sandbox tmp862lkupv] FAIL:
test_callbacks_should_only_be_called_once_even_if_multiple_dependencies_
change
(test reactive system.TestReactiveSystem.test callbacks should only be c
alled once even if multiple dependencies change)
DEBUG: [DOCKER:sandbox_tmp862lkupv] -----
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:42:00,447 - agent -
INFO - [RUN:8366b657-e085-4a65-b899-ef494c437792] Step 26/30
```

```
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 5542/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:42:00,448 - agent -
DEBUG - [REQUEST] run_id: 8366b657-e085-4a65-b899-ef494c437792, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 5542/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:42:04,136 - agent -
INFO - LLM proposed action: get_file_content with args: {'file_path':
'./test_reactive_system.py', 'search_start_line': 95, 'search_end_line':
115}
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:42:04,136 - agent -
INFO - Tool observation (first 300 chars): Lines 95-115 of ./
test reactive system.py:
DEBUG: [DOCKER:sandbox_tmp862lkupv]
compute cell.add callback(callback1)
DEBUG: [DOCKER:sandbox tmp862lkupv]
compute cell.add callback(callback2)
DEBUG: [DOCKER:sandbox_tmp862lkupv]
compute cell.remove callback(callback1)
DEBUG: [DOCKER:sandbox tmp862lkupv]
compute cell.remove callback(callback1)
DEBUG: [DOCKER:sandbox tmp862lkupv]
compute cell.remove callback(callback1)
DEBUG: [DOCKER:sandbox_tmp862lkupv]
                                             input_cell.valu...
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:42:04,138 - agent -
DEBUG - Successfully saved agent state to .agent state.json
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:42:04,138 - agent -
INFO - [RUN:8366b657-e085-4a65-b899-ef494c437792] Step 27/30
DEBUG: [DOCKER:sandbox_tmp862lkupv] [CONTEXT] Messages fit: 5645/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:42:04,139 - agent -
DEBUG - [REOUEST] run id: 8366b657-e085-4a65-b899-ef494c437792, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 5645/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:42:15,311 - agent -
INFO - LLM proposed action: apply_code_edit with args: {'file_path': './
main.py', 'search': 'class ComputeCell:\n
                                             def __init__(self, inputs,
compute function):\n
                           self.inputs = inputs\n
self.compute function = compute function\n
                                                  self.dependents =
set()\n
               self.callbacks = set()\n
                                               self._needs_update =
              self._cached_value = None', 'replace': 'class ComputeCell:
True\n
     def __init__(self, inputs, compute_function):\n
\n
                                                              self.inputs
                  self.compute_function = compute_function\n
= inputs\n
self.dependents = set()\n
self._needs_update = True\n
self._callbacks = set()\n
self._cached_value = None\n
self._update_in_progress = False\n
                                          self._pending_callbacks =
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:42:15,311 - agent -
INFO - Tool observation (first 300 chars): Error: search string found 0
times in './main.py'. Must be found exactly once....
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:42:15,311 - agent -
INFO - [RUN:8366b657-e085-4a65-b899-ef494c437792] Step 28/30
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 5825/107929
tokens
```

```
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:42:15,312 - agent -
DEBUG - [REQUEST] run id: 8366b657-e085-4a65-b899-ef494c437792, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox_tmp862lkupv] [CONTEXT] Messages fit: 5825/107929
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:42:18,619 - agent -
INFO - LLM proposed action: get_file_content with args: {'file_path':
'./main.py', 'search_start_line': 25, 'search_end_line': 35}
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:42:18,619 - agent -
INFO - Tool observation (first 300 chars): Lines 25-35 of ./main.py:
DEBUG: [DOCKER:sandbox tmp862lkupv]
                                         self.inputs = inputs
DEBUG: [DOCKER:sandbox_tmp862lkupv]
                                         self.compute function =
compute_function
DEBUG: [DOCKER:sandbox tmp862lkupv]
                                         self.dependents = set()
DEBUG: [DOCKER:sandbox_tmp862lkupv]
                                         self.callbacks = set()
DEBUG: [DOCKER:sandbox tmp862lkupv]
                                         self. cached value = None
DEBUG: [DOCKER:sandbox tmp862lkupv]
                                         self. needs update = True
DEBUG: [DOCKER:sandbox_tmp862lkupv]
DEBUG: [DOCKER:sandbox_tmp862lkupv]  # Add this compute cell as a
dependent to all it...
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:42:18,619 - agent -
INFO - [RUN:8366b657-e085-4a65-b899-ef494c437792] Step 29/30
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 5922/107929
tokens
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:42:18,620 - agent -
DEBUG - [REQUEST] run_id: 8366b657-e085-4a65-b899-ef494c437792. model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox_tmp862lkupv] [CONTEXT] Messages fit: 5922/107929
tokens
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:42:25,087 - agent -
INFO - LLM proposed action: apply_code_edit with args: {'file_path': './
main.py', 'search': '
                           self.inputs = inputs\n
self.compute function = compute function\n
                                               self.dependents =
set()\n
             self.callbacks = set()\n
                                           self__cached_value =
             self._needs_update = True', 'replace': '
None\n
set()'}
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:42:25,088 - agent -
INFO - Tool observation (first 300 chars): ok, code edit applied
successfully...
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:42:25,088 - agent -
INFO - [RUN:8366b657-e085-4a65-b899-ef494c437792] Step 30/30
DEBUG: [DOCKER:sandbox tmp862lkupv] [CONTEXT] Messages fit: 6029/107929
tokens
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:42:25,089 - agent -
DEBUG - [REOUEST] run id: 8366b657-e085-4a65-b899-ef494c437792. model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox_tmp862lkupv] [CONTEXT] Messages fit: 6029/107929
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:42:33,062 - agent -
INFO - LLM proposed action: apply_code_edit with args: {'file_path': './
main.py', 'search': ' def _update(self):\n # Store the old
value before recomputing\n old_value = self._cached_value\n
```

```
# Mark as needing update and compute new value\n
# If value changed, notify dependents first\n if old_value !=
new value:\n
                    for dependent in self.dependents:\n
dependent. update()\n
                             # Only call callbacks after all
dependents have been updated\n
                                     for callback in
self.callbacks:\n
                             callback(self)', 'replace': "    def
update(self):\n
                    # If we're already in an update cycle, defer
callback execution\n
                     if self._update_in_progress:\n
return\n
                 \n
                        self._update_in_progress = True\n
\n  # Store the old value before recomputing\n old value =
self._cached_value\n
                       \n  # Mark as needing update and
                      compute new value\n
if old_value != new_value:\n
                                               for dependent in
first\n
                             dependent__update()\n
self.dependents:\n
Only call callbacks after all dependents have been updated\n
for callback in self.callbacks:\n
                                           callback(self)\n
         self._update_in_progress = False"}
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:42:33,063 - agent -
INFO - Tool observation (first 300 chars): ok, code edit applied
successfully...
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:42:33,063 - agent -
WARNING - Workflow ended by reaching max steps (30).
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:42:33,063 - agent -
INFO - Workflow execution complete. Generating final patch.
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:42:33,063 - agent -
INFO - Generating final git patch...
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:42:33,085 - agent -
INFO - Generating final git patch...
DEBUG: [DOCKER:sandbox_tmp862lkupv]
DEBUG: [DOCKER:sandbox tmp862lkupv]
DEBUG: [DOCKER:sandbox_tmp862lkupv] ✓ CREATE WORKFLOW COMPLETED
DEBUG: [DOCKER:sandbox tmp862lkupv]
DEBUG: [DOCKER:sandbox_tmp862lkupv] 2025-10-21 19:42:33,105 - agent -
INFO - [WORKFLOW] CREATE workflow completed
DEBUG: [DOCKER:sandbox tmp862lkupv] HEAD is now at 382fb47 Initial
commit
DEBUG: [DOCKER:sandbox_tmp862lkupv]
DEBUG: [DOCKER:sandbox_tmp862lkupv]
=======
DEBUG: [DOCKER:sandbox_tmp862lkupv] MR AGENT FINISHED
DEBUG: [DOCKER:sandbox tmp862lkupv]
DEBUG: [DOCKER:sandbox tmp862lkupv] 2025-10-21 19:42:33,110 - agent -
INFO - [AGENT-END] Agent execution completed
DEBUG: [DOCKER:sandbox_tmp862lkupv] [AGENT_RUNNER] Exited agent's
agent main()
DEBUG: [DOCKER:sandbox_tmp862lkupv] [AGENT_RUNNER] Writing output.json
```

```
DEBUG: [DOCKER:sandbox_tmp862lkupv] [AGENT_RUNNER] Wrote output.json
DEBUG: [DOCKER:sandbox tmp862lkupv] [AGENT RUNNER] Exiting main()
DEBUG: [SANDBOX] <sandbox_tmp862lkupv> finished running
DEBUG: [SANDBOX] <sandbox_tmp862lkupv> captured 379 lines of logs
DEBUG: [SANDBOX] Read output.json from <sandbox tmp862lkupv>: /tmp/
tmp862lkupv/output.json
DEBUG: [PROBLEM_SUITE] Validating diff generated by
<sandbox tmp862lkupv> for react
DEBUG: [PROBLEM_SUITE] Diff generated by <sandbox_tmp862lkupv> for react
is valid
 INFO: [PROBLEM SUITE] Finished sandbox to run agent for problem react:
success
====== DIFF (222 lines) =======
diff --qit a/main.py b/main.py
index ab6be31..0fdd911 100644
--- a/main.pv
+++ b/main.py
00 -1,15 +1,76 00
 class InputCell:
     def __init__(self, initial_value):
         self.value = None
         self._value = initial_value
+
         self.dependents = set()
+
+
         self.callbacks = set()
+
     @property
+
     def value(self):
+
         return self._value
+
+
+
     @value.setter
     def value(self, new_value):
+
         if self._value != new_value:
+
             self._value = new_value
+
             # Notify all dependents of the change
+
             for dependent in self.dependents:
+
                 dependent._update()
+
+
     def set_value(self, new_value):
         self.value = new_value # Use the property setter
 class ComputeCell:
     def __init__(self, inputs, compute_function):
         self.value = None
         self.inputs = inputs
+
         self.compute function = compute function
+
         self.dependents = set()
+
         self.callbacks = set()
+
         self._cached_value = None
         self._needs_update = True
         self._update_in_progress = False
         self. pending callbacks = set()
```

```
# Add this compute cell as a dependent to all its inputs
+
         for input_cell in inputs:
             input_cell.dependents.add(self)
         # Compute initial value
         self. update()
     def add_callback(self, callback):
         pass
+
     @property
     def value(self):
+
         if self._needs_update:
+
             self._cached_value = self.compute_function(self.inputs)
+
             self._needs_update = False
         return self._cached_value
+
     def update(self):
+
         # If we're already in an update cycle, defer callback execution
+
         if self._update_in_progress:
+
             return
+
         self._update_in_progress = True
         # Store the old value before recomputing
         old_value = self._cached_value
+
         # Mark as needing update and compute new value
         self._needs_update = True
         new_value = self.value
+
         # If value changed, notify dependents first
         if old_value != new_value:
+
             for dependent in self.dependents:
                 dependent._update()
+
             # Only call callbacks after all dependents have been
updated
             for callback in self.callbacks:
+
                 callback(self)
+
+
         self._update_in_progress = False
+
+
     def add_callback(self, callback):
         self.callbacks.add(callback)
+
     def remove_callback(self, callback):
         pass
\ No newline at end of file
         self.callbacks.discard(callback)
\ No newline at end of file
diff --git a/test_reactive_system.py b/test_reactive_system.py
new file mode 100644
index 0000000.a43e584
--- /dev/null
+++ b/test_reactive_system.py
@@ -0,0 +1,126 @@
```

```
+import unittest
+from main import InputCell, ComputeCell
+class TestReactiveSystem(unittest.TestCase):
+
     def test_input_cells_have_a_value(self):
         input_cell = InputCell(10)
+
         self.assertEqual(input cell.value, 10)
+
+
     def test_compute_cells_calculate_initial_value(self):
         input cell = InputCell(1)
+
         compute_cell = ComputeCell([input_cell], lambda inputs:
inputs[0].value + 1)
         self.assertEqual(compute cell.value, 2)
     def test_compute_cells_take_inputs_in_right_order(self):
+
         input cell1 = InputCell(1)
+
         input_cell2 = InputCell(2)
+
         compute_cell = ComputeCell([input_cell1, input_cell2], lambda
inputs: inputs[0].value + inputs[1].value * 10)
         self.assertEqual(compute_cell.value, 21)
     def
+
test_compute_cells_update_value_when_dependencies_are_changed(self):
         input_cell = InputCell(1)
         compute_cell = ComputeCell([input_cell], lambda inputs:
+
inputs[0].value + 1)
         input_cell.value = 2
         self.assertEqual(compute cell.value, 3)
+
     def test_compute_cells_can_depend_on_other_compute_cells(self):
         input_cell = InputCell(1)
+
         times_two = ComputeCell([input_cell], lambda inputs:
inputs[0].value * 2)
         times_thirty = ComputeCell([input_cell], lambda inputs:
inputs[0] value * 30)
         sum cell = ComputeCell([times two, times thirty], lambda
inputs: inputs[0].value + inputs[1].value)
         self.assertEqual(sum_cell.value, 32)
+
         input cell.value = 3
+
         self.assertEqual(sum_cell.value, 96)
+
+
     def test compute cells fire callbacks(self):
+
         input_cell = InputCell(1)
         output = []
+
+
         callback = lambda cell: output.append(cell.value)
         compute_cell = ComputeCell([input_cell], lambda inputs:
inputs[0].value + 1)
         compute cell.add callback(callback)
         input cell.value = 2
+
         self.assertEqual(output, [3])
+
+
+
     def test_callbacks_only_fire_on_change(self):
         input_cell = InputCell(1)
         output = []
         callback = lambda cell: output.append(cell.value)
```

```
compute_cell = ComputeCell([input_cell], lambda inputs: 111 if
inputs[0].value < 3 else 222)
         compute_cell.add_callback(callback)
         input_cell.value = 2
+
         self.assertEqual(output, [])
+
         input cell.value = 4
         self.assertEqual(output, [222])
+
     def test_callbacks_do_not_report_already_reported_values(self):
+
         input_cell = InputCell(1)
+
         output = []
+
         callback = lambda cell: output.append(cell.value)
+
         compute_cell = ComputeCell([input_cell], lambda inputs:
+
inputs[0].value + 1)
         compute_cell.add_callback(callback)
         input_cell.value = 2
+
         self.assertEqual(output, [3])
+
         input_cell.value = 3
+
         self.assertEqual(output, [3, 4])
+
     def test_callbacks_can_be_added_and_removed(self):
+
         input_cell = InputCell(1)
         output1 = []
+
         output2 = []
+
         output3 = []
         callback1 = lambda cell: output1.append(cell.value)
+
         callback2 = lambda cell: output2.append(cell.value)
         callback3 = lambda cell: output3.append(cell.value)
         compute_cell = ComputeCell([input_cell], lambda inputs:
+
inputs[0].value + 1)
         compute_cell.add_callback(callback1)
         compute cell.add callback(callback2)
+
         input cell.value = 2
+
         self.assertEqual(output1, [3])
+
         self.assertEqual(output2, [3])
         compute_cell.remove_callback(callback1)
         compute cell.add callback(callback3)
         input_cell.value = 3
         self.assertEqual(output1, [3])
         self.assertEqual(output2, [3, 4])
+
         self assertEqual(output3, [4])
+
     def
test removing a callback multiple times doesn t interfere with other cal
lbacks(self):
         input_cell = InputCell(1)
+
         output1 = []
+
         output2 = []
+
         callback1 = lambda cell: output1.append(cell.value)
         callback2 = lambda cell: output2.append(cell.value)
+
         compute_cell = ComputeCell([input_cell], lambda inputs:
inputs[0].value + 1)
         compute_cell.add_callback(callback1)
         compute_cell.add_callback(callback2)
+
         compute cell.remove callback(callback1)
         compute_cell.remove_callback(callback1)
```

```
compute_cell.remove_callback(callback1)
+
         input cell.value = 2
+
         self.assertEqual(output1, [])
         self.assertEqual(output2, [3])
+
+
+
     def
test_callbacks_should_only_be_called_once_even_if_multiple_dependencies_
change(self):
         input_cell1 = InputCell(1)
+
         input_cell2 = InputCell(2)
         output = []
+
         callback = lambda cell: output.append(cell.value)
+
         compute_cell = ComputeCell([input_cell1, input_cell2], lambda
inputs: inputs[0].value + inputs[1].value)
         compute_cell.add_callback(callback)
+
         input_cell1.value = 2
+
         input cell2.value = 4
+
         self.assertEqual(output, [6])
+
     def
test_callbacks_should_not_be_called_if_dependencies_change_but_output_va
lue_doesn_t_change(self):
         input_cell1 = InputCell(1)
         input_cell2 = InputCell(2)
+
         output = []
         callback = lambda cell: output.append(cell.value)
+
         compute_cell = ComputeCell([input_cell1, input_cell2], lambda
inputs: 7)
         compute_cell.add_callback(callback)
+
         input_cell1.value = 2
+
         self.assertEqual(output, [])
+
+if name == ' main ':
     unittest.main()
\ No newline at end of file
====== LOGS (379 lines) =======
 INFO: [PROBLEM_SUITE] Starting sandbox to evaluate solution diff for
problem react
DEBUG: [SANDBOX] Created sandbox temp directory for
<sandbox tmpxuqjwucy>: /tmp/tmpxuqjwucy
DEBUG: [POLYGLOT] Copied main.py to /tmp/tmpxuqjwucy/repo for react
DEBUG: [POLYGLOT] Copied tests.py to /tmp/tmpxuqjwucy/repo for react
DEBUG: [POLYGLOT] Initializing git repository in /tmp/tmpxuqjwucy/repo
for react
DEBUG: [GIT] Initializing git repository in /tmp/tmpxugjwucy/repo
DEBUG: [GIT] Initialized git repository in /tmp/tmpxuqjwucy/repo
DEBUG: [GIT] Adding all files in /tmp/tmpxuqjwucy/repo
DEBUG: [GIT] Added all files in /tmp/tmpxugjwucy/repo
DEBUG: [GIT] Making initial commit: Initial commit
DEBUG: [GIT] Made initial commit: Initial commit
DEBUG: [POLYGLOT] Initialized git repository in /tmp/tmpxugjwucy/repo
for react
```

```
DEBUG: [PROBLEM_SUITE] Applying agent's solution diff to /tmp/
tmpxuqiwucv/repo for problem react
DEBUG: [PROBLEM SUITE] Applied agent's solution diff to /tmp/
tmpxuqjwucy/repo for problem react
DEBUG: [SANDBOX] Copied main Python script (/root/abstract-agent-runner/
problem suites/polyglot/TEST RUNNER.py) for <sandbox tmpxugjwucy>: /tmp/
tmpxuqjwucy/TEST_RUNNER.py
DEBUG: [SANDBOX] Written input.json for <sandbox tmpxuqjwucy>: /tmp/
tmpxuqjwucy/input.json
DEBUG: [SANDBOX] Running sandbox <sandbox_tmpxugjwucy>
DEBUG: [SANDBOX] Started sandbox runner thread for <sandbox tmpxugiwucv>
DEBUG: [PROBLEM SUITE] Started sandbox to evaluate solution diff for
problem react
DEBUG: [SANDBOX] Cleaned up sandbox <sandbox tmp862lkupv>
DEBUG: [DOCKER:sandbox_tmpxuqjwucy] [POLYGLOT_TEST_RUNNER] Entered
main()
DEBUG: [DOCKER:sandbox tmpxugjwucy] [POLYGLOT TEST RUNNER] Loading
main.py
DEBUG: [DOCKER:sandbox_tmpxuqjwucy] [POLYGLOT_TEST_RUNNER] Loaded
main.py
DEBUG: [DOCKER:sandbox_tmpxuqjwucy] [POLYGLOT_TEST_RUNNER] Loading
tests.pv
DEBUG: [DOCKER:sandbox tmpxugjwucy] [POLYGLOT TEST RUNNER] Loaded
tests.py
DEBUG: [DOCKER:sandbox_tmpxugjwucy] [POLYGLOT_TEST_RUNNER] Found test
class: ReactTest
DEBUG: [DOCKER:sandbox tmpxug;wucy] [POLYGLOT TEST RUNNER] Found 14 test
methods
DEBUG: [DOCKER:sandbox_tmpxuqjwucy] [POLYGLOT_TEST_RUNNER] [1/14]
Running test_an_input_cell_s_value_can_be_set...
DEBUG: [DOCKER:sandbox_tmpxugjwucy] [POLYGLOT_TEST_RUNNER]
test an input cell s value can be set: PASSED
DEBUG: [DOCKER:sandbox tmpxugiwucy] [POLYGLOT TEST RUNNER] [2/14]
Running test_callback_cells_only_fire_on_change...
DEBUG: [DOCKER:sandbox_tmpxuqjwucy] [POLYGLOT_TEST_RUNNER]
test_callback_cells_only_fire_on_change: FAILED - '<' not supported
between instances of 'InputCell' and 'int'
DEBUG: [DOCKER:sandbox tmpxugjwucy] [POLYGLOT TEST RUNNER] Test results:
DEBUG: [DOCKER:sandbox_tmpxugjwucy] [{'name':
'test_an_input_cell_s_value_can_be_set', 'status': 'pass'}, {'name':
'test_callback_cells_only_fire_on_change', 'status': 'fail'}, {'name': 'test_callbacks_can_be_added_and_removed', 'status': 'skip'}, {'name':
'test_callbacks_can_fire_from_multiple_cells', 'status': 'skip'},
{'name': 'test_callbacks_do_not_report_already_reported_values',
'status': 'skip'}, {'name':
'test callbacks should not be called if dependencies change but output v
alue_doesn_t_change', 'status': 'skip'}, {'name':
'test_callbacks_should_only_be_called_once_even_if_multiple_dependencies
_change', 'status': 'skip'}, {'name':
'test_compute_cells_calculate_initial_value', 'status': 'skip'},
{'name': 'test_compute_cells_can_depend_on_other_compute_cells',
'status': 'skip'}, {'name': 'test_compute_cells_fire_callbacks',
'status': 'skip'}, {'name':
'test_compute_cells_take_inputs_in_the_right_order', 'status': 'skip'},
{'name':
'test_compute_cells_update_value_when_dependencies_are_changed',
```

```
'status': 'skip'}, {'name': 'test input cells have a value', 'status':
'skip'}, {'name':
'test removing a callback multiple times doesn t interfere with other ca
llbacks', 'status': 'skip'}]
DEBUG: [DOCKER:sandbox tmpxugjwucy] [POLYGLOT TEST RUNNER] Test summary:
1 passed, 1 failed, 12 skipped
DEBUG: [DOCKER:sandbox_tmpxugjwucy] [POLYGLOT_TEST_RUNNER] Writing
output.ison
DEBUG: [DOCKER:sandbox tmpxugjwucy] [POLYGLOT TEST RUNNER] Wrote
output.json
DEBUG: [DOCKER:sandbox tmpxuqjwucy] [POLYGLOT_TEST_RUNNER] Exiting
main()
DEBUG: [SANDBOX] <sandbox_tmpxuqjwucy> finished running
DEBUG: [SANDBOX] <sandbox tmpxugjwucy> captured 17 lines of logs
DEBUG: [SANDBOX] Read output.json from <sandbox_tmpxuqjwucy>: /tmp/
tmpxuqiwucy/output.ison
INFO: [PROBLEM SUITE] Finished sandbox to evaluate solution diff for
problem react: success
```

```
====== TEST RESULTS =======
1 passed, 1 failed, 12 skipped
test_an_input_cell_s_value_can_be_set - no category - pass
test_callback_cells_only_fire_on_change - no category - fail
test_callbacks_can_be_added_and_removed - no category - skip
test callbacks can fire from multiple cells - no category - skip
test_callbacks_do_not_report_already_reported_values - no category -
skip
test_callbacks_should_not_be_called_if_dependencies_change_but_output_va
lue_doesn_t_change - no category - skip
test callbacks should only be called once even if multiple dependencies
change - no category - skip
test_compute_cells_calculate_initial_value - no category - skip
test_compute_cells_can_depend_on_other_compute_cells - no category -
skip
test compute cells fire callbacks - no category - skip
test_compute_cells_take_inputs_in_the_right_order - no category - skip
test_compute_cells_update_value_when_dependencies_are_changed - no
category - skip
test_input_cells_have_a_value - no category - skip
test_removing_a_callback_multiple_times_doesn_t_interfere_with_other_cal
lbacks - no category - skip
====== LOGS (17 lines) =======
```

DEBUG: [SANDBOX] Cleaned up sandbox <sandbox tmpxugjwucy>

```
(.venv clean) root@kind-name-wilts-fin-01:~/abstract-agent-runner#
python cli.py polyglot proverb agent-maxi-2.py http://
135.181.71.13:8000 --log-docker-to-stdout --verbose --timeout 1200
 INFO: [POLYGLOT] Loaded 33 problems from datasets/polyglot/
polyglot.json
DEBUG: [POLYGLOT]
                      Problem affine-cipher verified successfully (found
16 associated tests)
DEBUG: [POLYGLOT]
                      Problem beer-song verified successfully (found 8
associated tests)
DEBUG: [POLYGLOT]
                      Problem book-store verified successfully (found 20
associated tests)
DEBUG: [POLYGLOT]
                      Problem bottle-song verified successfully (found 7
associated tests)
DEBUG: [POLYGLOT]
                      Problem bowling verified successfully (found 31
associated tests)
                      Problem connect verified successfully (found 10
DEBUG: [POLYGLOT]
associated tests)
DEBUG: [POLYGLOT]
                      Problem dominoes verified successfully (found 13
associated tests)
DEBUG: [POLYGLOT]
                      Problem dot-dsl verified successfully (found 12
associated tests)
                      Problem food-chain verified successfully (found 10
DEBUG: [POLYGLOT]
associated tests)
                      Problem forth verified successfully (found 54
DEBUG: [POLYGLOT]
associated tests)
DEBUG: [POLYGLOT]
                      Problem go-counting verified successfully (found
11 associated tests)
DEBUG: [POLYGLOT]
                      Problem grade-school verified successfully (found
20 associated tests)
DEBUG: [POLYGLOT]
                      Problem grep verified successfully (found 25
associated tests)
                      Problem hangman verified successfully (found 7
DEBUG: [POLYGLOT]
associated tests)
DEBUG: [POLYGLOT]
                      Problem list-ops verified successfully (found 24
associated tests)
DEBUG: [POLYGLOT]
                      Problem phone-number verified successfully (found
21 associated tests)
DEBUG: [POLYGLOT]
                      Problem pig-latin verified successfully (found 22
associated tests)
DEBUG: [POLYGLOT]
                      Problem poker verified successfully (found 37
associated tests)
DEBUG: [POLYGLOT]
                      Problem pov verified successfully (found 15
associated tests)
DEBUG: [POLYGLOT]
                      Problem proverb verified successfully (found 8
associated tests)
DEBUG: [POLYGLOT]
                      Problem react verified successfully (found 14
associated tests)
DEBUG: [POLYGLOT]
                      Problem rest-api verified successfully (found 9
associated tests)
DEBUG: [POLYGLOT]
                      Problem robot-name verified successfully (found 4
associated tests)
DEBUG: [POLYGLOT]
                      Problem scale-generator verified successfully
```

(found 17 associated tests)

```
DEBUG: [POLYGLOT]
                      Problem sgf-parsing verified successfully (found
23 associated tests)
DEBUG: [POLYGLOT]
                      Problem simple-linked-list verified successfully
(found 20 associated tests)
DEBUG: [POLYGLOT]
                      Problem transpose verified successfully (found 12)
associated tests)
DEBUG: [POLYGLOT]
                      Problem tree-building verified successfully (found
13 associated tests)
DEBUG: [POLYGLOT]
                      Problem two-bucket verified successfully (found 9
associated tests)
DEBUG: [POLYGLOT]
                      Problem variable-length-quantity verified
successfully (found 26 associated tests)
DEBUG: [POLYGLOT]
                      Problem wordy verified successfully (found 25
associated tests)
DEBUG: [POLYGLOT]
                      Problem zebra-puzzle verified successfully (found
2 associated tests)
DEBUG: [POLYGLOT]
                      Problem zipper verified successfully (found 14
associated tests)
 INFO: [POLYGLOT] Successfully loaded 33 problems
 INFO: Problem proverb has 8 tests
 INFO: [SANDBOX] Checking gateway URL: http://135.181.71.13:8000
 INFO: [SANDBOX] Gateway URL http://135.181.71.13:8000 is valid
DEBUG: [SANDBOX] Stopping and deleting all containers
DEBUG: [SANDBOX] Stopped and deleted all containers
 INFO: [SANDBOX] Building Docker image: sandbox-image
[+] Building 0.8s (11/11) FINISHED
docker:default
 => [internal] load build definition from Dockerfile
0.05
 => => transferring dockerfile: 1.04kB
0.0s
 => [internal] load metadata for docker.io/library/python:3.11-slim
0.7s
=> [internal] load .dockerignore
0.0s
=> => transferring context: 2B
 => [1/6] FROM docker.io/library/python:3.11-
slim@sha256:b6000fc45f769f42c4c717dab2675bbb0ec6531c32a0483a2f78de0b7023
e71b
0.0s
 => => resolve docker.io/library/python:3.11-
slim@sha256:b6000fc45f769f42c4c717dab2675bbb0ec6531c32a0483a2f78de0b7023
e71b
0.0s
 => [internal] load build context
0.0s
=> => transferring context: 46B
 => CACHED [2/6] RUN apt-get update && apt-get install -y --no-
install-recommends git patch diffutils && rm -rf /var/lib/apt/lists/
0.0s
 => CACHED [3/6] COPY sandbox_requirements.txt /tmp/
sandbox requirements.txt
0.0s
```

```
=> CACHED [4/6] RUN pip install --no-cache-dir --upgrade pip &&
                                                                rm /tmp/
install --no-cache-dir -r /tmp/sandbox_requirements.txt &&
sandbox requirements.txt
 => CACHED [5/6] RUN pip cache purge && rm -rf /root/.cache/pip
0.0s
 => CACHED [6/6] WORKDIR /sandbox
0.0s
=> exporting to image
0.0s
=> => exporting layers
0.0s
=> => writing image
sha256:6a0d37b7a80c209efc720b51333a5af41822e44e249d5749ba8c3dcb2762dbcd
0.0s
=> => naming to docker.io/library/sandbox-image
0.0s
 INFO: [SANDBOX] Successfully built Docker image: sandbox-image
DEBUG: [SANDBOX] Found sandbox network: sandbox-network
 INFO: [SANDBOX] Building Docker image: sandbox-proxy-image
[+] Building 0.8s (8/8) FINISHED
docker:default
=> [internal] load build definition from Dockerfile
0.05
 => => transferring dockerfile: 289B
0.0s
 => [internal] load metadata for docker.io/library/nginx:alpine
0.7s
=> [internal] load .dockerignore
0.05
 => => transferring context: 2B
0.0s
 => [1/3] FROM docker.io/library/
nginx:alpine@sha256:61e01287e546aac28a3f56839c136b31f590273f3b41187a36f4
6f6a03bbfe22
0.0s
 => [internal] load build context
0.0s
 => => transferring context: 41B
0.0s
 => CACHED [2/3] RUN apk add --no-cache gettext
0.0s
 => CACHED [3/3] COPY nginx.conf.template /tmp/nginx.conf.template
0.05
 => exporting to image
0.0s
=> => exporting layers
0.0s
=> => writing image
sha256;b38edefd62e5475e622d31caf7dabe385f28d175b050c8ae714b02c9758742a3
0.0s
 => => naming to docker.io/library/sandbox-proxy-image
0.0s
 INFO: [SANDBOX] Successfully built Docker image: sandbox-proxy-image
 INFO: [SANDBOX] Running sandbox proxy
DEBUG: [SANDBOX] Connected sandbox proxy to bridge network
DEBUG: [SANDBOX] Starting watchdog thread
```

```
DEBUG: [SANDBOX] Started watchdog thread
 INFO: [PROBLEM SUITE] Starting sandbox to run agent for problem proverb
DEBUG: [SANDBOX] Created sandbox temp directory for
<sandbox_tmpk95tjvac>: /tmp/tmpk95tjvac
DEBUG: [POLYGLOT] Copied main.py to /tmp/tmpk95tjvac/repo for proverb
DEBUG: [POLYGLOT] Initializing git repository in /tmp/tmpk95tjvac/repo
for proverb
DEBUG: [GIT] Initializing git repository in /tmp/tmpk95tjvac/repo
DEBUG: [GIT] Initialized git repository in /tmp/tmpk95tjvac/repo
DEBUG: [GIT] Adding all files in /tmp/tmpk95tjvac/repo
DEBUG: [GIT] Added all files in /tmp/tmpk95tivac/repo
DEBUG: [GIT] Making initial commit: Initial commit
DEBUG: [GIT] Made initial commit: Initial commit
DEBUG: [POLYGLOT] Initialized git repository in /tmp/tmpk95tjvac/repo
for proverb
DEBUG: [SANDBOX] Copied main Python script (/root/abstract-agent-runner/
problem suites/AGENT RUNNER.py) for <sandbox tmpk95tjvac>: /tmp/
tmpk95tivac/AGENT RUNNER.py
DEBUG: [SANDBOX] Written input.json for <sandbox_tmpk95tjvac>: /tmp/
tmpk95tjvac/input.json
DEBUG: [SANDBOX] Running sandbox <sandbox tmpk95tjvac>
DEBUG: [SANDBOX] Started sandbox runner thread for <sandbox_tmpk95tjvac>
DEBUG: [PROBLEM SUITE] Started sandbox to run agent for problem proverb
DEBUG: [DOCKER:sandbox_tmpk95tjvac] [AGENT_RUNNER] Entered main()
DEBUG: [DOCKER:sandbox_tmpk95tjvac] [AGENT_RUNNER] Reading input.json
DEBUG: [DOCKER:sandbox_tmpk95tjvac] [AGENT_RUNNER] Read input.json
DEBUG: [DOCKER:sandbox tmpk95tjvac] [AGENT RUNNER] Loading /sandbox/
agent.pv
DEBUG: [DOCKER:sandbox tmpk95tjvac] [AGENT RUNNER] Loaded /sandbox/
agent.py
DEBUG: [DOCKER:sandbox_tmpk95tjvac] [AGENT_RUNNER] agent_main() function
found in /sandbox/agent.pv
DEBUG: [DOCKER:sandbox tmpk95tjvac] [AGENT RUNNER] Entering agent's
agent main()
DEBUG: [DOCKER:sandbox tmpk95tjvac]
DEBUG: [DOCKER:sandbox_tmpk95tjvac]
______
=======
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 🚀 AGENT STARTING
DEBUG: [DOCKER:sandbox tmpk95tivac]
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:48:23,857 - agent -
INFO - [AGENT-START] Run ID: a8f13f5e-b73c-4562-9cfe-7c575bd476ba
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:48:23,857 - agent -
INFO - [AGENT-START] Repo directory: /sandbox/repo
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:48:23,857 - agent -
INFO - [AGENT-START] Test mode: False
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:48:23,857 - agent -
INFO - [AGENT-START] Timeout: 1800s, Max steps: 400
DEBUG: [DOCKER:sandbox_tmpk95tjvac] [DEBUG] Starting git initialization
DEBUG: [DOCKER:sandbox tmpk95tjvac] [DEBUG] Work directory: /sandbox/
repo
```

```
DEBUG: [DOCKER:sandbox tmpk95tjvac] [DEBUG] Before chdir - pwd shows: /
sandbox/repo
DEBUG: [DOCKER:sandbox tmpk95tjvac] [DEBUG] After chdir - pwd shows: /
sandbox/repo
DEBUG: [DOCKER:sandbox tmpk95tjvac] [DEBUG] Git repository already
exists
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:48:23,865 - agent -
INFO - [AGENT-START] Problem statement length: 1413 chars
DEBUG: [DOCKER:sandbox_tmpk95tjvac]
DEBUG: [DOCKER:sandbox_tmpk95tjvac]
DEBUG: [DOCKER:sandbox_tmpk95tjvac] Q DETERMINING PROBLEM TYPE...
DEBUG: [DOCKER:sandbox tmpk95tjvac]
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:48:23,865 - agent -
DEBUG - [REQUEST] run id: a8f13f5e-b73c-4562-9cfe-7c575bd476ba, model:
Owen/Owen3-Coder-480B-A35B-Instruct-FP8
DEBUG: [DOCKER:sandbox_tmpk95tjvac] [CONTEXT] Messages fit: 279/219340
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:48:25,900 - agent -
INFO - [PROBLEM-TYPE] Determined: CREATE
DEBUG: [DOCKER:sandbox_tmpk95tjvac]
DEBUG: [DOCKER:sandbox_tmpk95tjvac]
DEBUG: [DOCKER:sandbox tmpk95tjvac] NEW CREATE TASK DETECTED - STARTING
CREATE WORKFLOW
DEBUG: [DOCKER:sandbox tmpk95tjvac]
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:48:25,900 - agent -
INFO - [WORKFLOW] Starting CREATE task workflow
DEBUG: [DOCKER:sandbox tmpk95tjvac]
DEBUG: [DOCKER:sandbox tmpk95tjvac]
DEBUG: [DOCKER:sandbox tmpk95tjvac] | NEW CREATE TASK WORKFLOW STARTING
DEBUG: [DOCKER:sandbox_tmpk95tjvac]
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:48:25,900 - agent -
INFO - [CREATE] Starting CREATE task workflow
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:48:25,900 - agent -
INFO - [CREATE] Problem statement length: 1465 chars
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:48:25,900 - agent -
INFO - [CREATE] Step 1: Generating code skeleton
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:48:25,901 - agent -
INFO - [CREATE] Code skeleton generated: 38 chars
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:48:25,901 - agent -
INFO - [CREATE] Step 2: Generating initial solution
```

```
DEBUG: [DOCKER:sandbox tmpk95tivac] 2025-10-21 19:48:25,901 - agent -
INFO - Starting multi-step reasoning solution generation
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:48:25,901 - agent -
DEBUG - [REQUEST] run_id: a8f13f5e-b73c-4562-9cfe-7c575bd476ba, model:
Qwen/Qwen3-Coder-480B-A35B-Instruct-FP8
DEBUG: [DOCKER:sandbox tmpk95tjvac] [CONTEXT] Messages fit: 706/219340
tokens
DEBUG: [DOCKER:sandbox tmpk95tivac] 2025-10-21 19:48:27.445 - agent -
INFO - Multi-step reasoning solution generation completed successfully
with infinite loop validation
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:48:27,445 - agent -
INFO - Generated initial solution successfully using multi-step
reasoning
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:48:27,445 - agent -
INFO - [CREATE] Initial solution generated: 399 chars
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:48:27,445 - agent -
INFO - [CREATE] Step 3: Extracting and writing solution files
DEBUG: [DOCKER:sandbox_tmpk95tjvac] Created file: ./main.py
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:48:27,446 - agent -
INFO - [CREATE] Created 1 solution files
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:48:27,446 - agent -
INFO - [CREATE] Step 4: Generating test files
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:48:27,446 - agent -
INFO - Starting test cases generation
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:48:27,446 - agent -
DEBUG - [REQUEST] run id: a8f13f5e-b73c-4562-9cfe-7c575bd476ba, model:
Qwen/Qwen3-Coder-480B-A35B-Instruct-FP8
DEBUG: [DOCKER:sandbox_tmpk95tjvac] [CONTEXT] Messages fit: 420/219340
tokens
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:48:31,324 - agent -
INFO - Step 1 - Testcase Generation completed
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:48:31,324 - agent -
DEBUG - [REQUEST] run_id: a8f13f5e-b73c-4562-9cfe-7c575bd476ba, model:
Owen/Owen3-Coder-480B-A35B-Instruct-FP8
DEBUG: [DOCKER:sandbox tmpk95tjvac] [CONTEXT] Messages fit: 544/219340
tokens
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:48:43,719 - agent -
INFO - Step 2 - Testcase check completed
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:48:43,719 - agent -
INFO - Multi-step reasoning solution generation completed successfully
with infinite loop validation
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:48:43,719 - agent -
INFO - Generated testcases successfully using multi-step reasoning
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:48:43,719 - agent -
INFO - [CREATE] Test cases generated: 1737 chars
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:48:43,719 - agent -
INFO - [CREATE] Step 5: Extracting and writing test files
DEBUG: [DOCKER:sandbox_tmpk95tjvac] Created file: ./test_proverb.py
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:48:43,720 - agent -
INFO - [CREATE] Created 1 test files
DEBUG: [DOCKER:sandbox_tmpk95tjvac] ✓ Created 1 test files
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:48:43,720 - agent -
INFO - [CREATE] Time spent: 17.8s, Remaining timeout: 1722.2s
```

```
DEBUG: [DOCKER:sandbox tmpk95tivac] 2025-10-21 19:48:43,720 - agent -
INFO - [CREATE] Step 6: Starting iterative FIX workflow for refinement
DEBUG: [DOCKER:sandbox tmpk95tjvac]
DEBUG: [DOCKER:sandbox_tmpk95tjvac]
DEBUG: [DOCKER:sandbox tmpk95tjvac] \ Starting iterative refinement
workflow...
DEBUG: [DOCKER:sandbox tmpk95tjvac]
DEBUG: [DOCKER:sandbox tmpk95tjvac]
DEBUG: [DOCKER:sandbox_tmpk95tjvac]
DEBUG: [DOCKER:sandbox_tmpk95tjvac] | \ ITERATIVE FIX WORKFLOW STARTING
DEBUG: [DOCKER:sandbox tmpk95tjvac]
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:48:43,720 - agent -
INFO - [ITERATIVE] Starting iterative FIX workflow
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:48:43,720 - agent -
INFO - [ITERATIVE] Run ID: a8f13f5e-b73c-4562-9cfe-7c575bd476ba
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:48:43,720 - agent -
INFO - [ITERATIVE] Max steps: 30, Timeout: 1722.1805226802826s
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:48:43,720 - agent -
INFO - [ITERATIVE] Test runner: unittest (mode: FILE)
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:48:43,720 - agent -
INFO - State file not found at .agent_state.json. Starting with a fresh
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:48:43,720 - agent -
INFO - [ITERATIVE] Loaded COT state: 0 existing thoughts
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:48:43,722 - agent -
INFO - [ITERATIVE] Initialized tool manager with 13 tools
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:48:43,722 - agent -
INFO - [ITERATIVE] Workflow started at 19:48:43
DEBUG: [DOCKER:sandbox tmpk95tjvac] 🚀 Starting iterative workflow (max
30 steps, 1722.1805226802826s timeout)
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:48:43,722 - agent -
INFO - [RUN:a8f13f5e-b73c-4562-9cfe-7c575bd476ba] Step 1/30
DEBUG: [DOCKER:sandbox_tmpk95tjvac] [CONTEXT] Messages fit: 2474/107929
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:48:43,723 - agent -
DEBUG - [REQUEST] run_id: a8f13f5e-b73c-4562-9cfe-7c575bd476ba, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox tmpk95tjvac] [CONTEXT] Messages fit: 2474/107929
tokens
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:48:52,617 - agent -
INFO - LLM proposed action: search in all files content with args:
{'search term': 'proverb'}
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:48:52,618 - agent -
INFO - Tool observation (first 300 chars): ./main.py:1:def
proverb(*args, qualifier=None):
```

```
DEBUG: [DOCKER:sandbox_tmpk95tjvac] ./test_proverb.py:2:from main import
proverb
DEBUG: [DOCKER:sandbox tmpk95tjvac] ./test proverb.py:5:class
TestProverb(unittest.TestCase):
DEBUG: [DOCKER:sandbox tmpk95tjvac] ./
test proverb.py:7:self.assertEqual(proverb(), [])
DEBUG: [DOCKER:sandbox_tmpk95tjvac] ./
test proverb.py:10:self.assertEqual(proverb("nail"), ["And all for the
want of a nail."])
DEBUG: [DOCKER:sandbox_tmpk95tjvac] ./tes...
DEBUG: [DOCKER:sandbox tmpk95tivac] 2025-10-21 19:48:52.618 - agent -
INFO - [RUN:a8f13f5e-b73c-4562-9cfe-7c575bd476ba] Step 2/30
DEBUG: [DOCKER:sandbox_tmpk95tjvac] [CONTEXT] Messages fit: 2598/107929
tokens
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:48:52,618 - agent -
DEBUG - [REOUEST] run id: a8f13f5e-b73c-4562-9cfe-7c575bd476ba, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox_tmpk95tjvac] [CONTEXT] Messages fit: 2598/107929
tokens
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:48:58,181 - agent -
INFO - LLM proposed action: get_file_content with args: {'file_path':
'./main.pv'}
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:48:58,181 - agent -
INFO - Tool observation (first 300 chars): def proverb(*args,
qualifier=None):
DEBUG: [DOCKER:sandbox_tmpk95tjvac]
                                        if not args:
DEBUG: [DOCKER:sandbox tmpk95tjvac]
                                            return []
DEBUG: [DOCKER:sandbox_tmpk95tjvac]
DEBUG: [DOCKER:sandbox_tmpk95tjvac]
                                        lines = []
DEBUG: [DOCKER:sandbox tmpk95tjvac]
                                        for i in range(len(args) - 1):
DEBUG: [DOCKER:sandbox_tmpk95tjvac]
                                            lines.append(f"For want of a
{args[i]} the {args[i+1]} was lost.")
DEBUG: [DOCKER:sandbox tmpk95tjvac]
DEBUG: [DOCKER:sandbox_tmpk95tjvac]
                                        if qualifier:
DEBUG: [DOCKER:sandbox_tmpk95tjvac]
                                            lines.append(f"And all for
the want of a {qualifier} {args[0]}.")
DEBUG: [DOCKER:sandbox tmpk95tjvac]
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:48:58,181 - agent -
INFO - [RUN:a8f13f5e-b73c-4562-9cfe-7c575bd476ba] Step 3/30
DEBUG: [DOCKER:sandbox_tmpk95tjvac] [CONTEXT] Messages fit: 2697/107929
tokens
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:48:58,181 - agent -
DEBUG - [REQUEST] run id: a8f13f5e-b73c-4562-9cfe-7c575bd476ba, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox_tmpk95tjvac] [CONTEXT] Messages fit: 2697/107929
tokens
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:49:01,292 - agent -
INFO - LLM proposed action: get_file_content with args: {'file_path':
'./test proverb.py'}
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:49:01,292 - agent -
INFO - Tool observation (first 300 chars): import unittest
DEBUG: [DOCKER:sandbox tmpk95tjvac] from main import proverb
DEBUG: [DOCKER:sandbox tmpk95tjvac]
DEBUG: [DOCKER:sandbox_tmpk95tjvac]
DEBUG: [DOCKER:sandbox tmpk95tjvac] class
TestProverb(unittest.TestCase):
```

```
DEBUG: [DOCKER:sandbox tmpk95tivac]
                                        def test empty list(self):
DEBUG: [DOCKER:sandbox_tmpk95tjvac]
                                            self.assertEqual(proverb(),
[])
DEBUG: [DOCKER:sandbox_tmpk95tjvac]
DEBUG: [DOCKER:sandbox tmpk95tjvac]
                                        def test single item(self):
DEBUG: [DOCKER:sandbox tmpk95tjvac]
self.assertEqual(proverb("nail"), ["And all for the want of a nail."])
DEBUG: [DOCKER:sandbox tmpk95tivac]
DEBUG: [DOCKER:sandbox_tmpk95tjvac]
                                        def test two items(self):
DEBUG: [DOCKER:sandbox_tmpk95tjvac]
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:49:01,292 - agent -
INFO - [RUN:a8f13f5e-b73c-4562-9cfe-7c575bd476ba] Step 4/30
DEBUG: [DOCKER:sandbox_tmpk95tjvac] [CONTEXT] Messages fit: 2908/107929
tokens
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:49:01,293 - agent -
DEBUG - [REOUEST] run id: a8f13f5e-b73c-4562-9cfe-7c575bd476ba, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox_tmpk95tjvac] [CONTEXT] Messages fit: 2908/107929
tokens
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:49:08,734 - agent -
INFO - LLM proposed action: run_repo_tests with args: {'file_paths':
['./test proverb.pv']}
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:49:08,734 - agent -
INFO - Running test command: python -m unittest test proverb
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:49:08,836 - agent -
INFO - Tool observation (first 300 chars): ......
DEBUG: [DOCKER:sandbox tmpk95tjvac]
DEBUG: [DOCKER:sandbox_tmpk95tjvac] Ran 7 tests in 0.000s
DEBUG: [DOCKER:sandbox tmpk95tjvac]
DEBUG: [DOCKER:sandbox_tmpk95tjvac] OK
DEBUG: [DOCKER:sandbox tmpk95tjvac] ...
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:49:08,836 - agent -
INFO - [RUN:a8f13f5e-b73c-4562-9cfe-7c575bd476ba] Step 5/30
DEBUG: [DOCKER:sandbox_tmpk95tjvac] [CONTEXT] Messages fit: 3039/107929
tokens
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:49:08,837 - agent -
DEBUG - [REQUEST] run id: a8f13f5e-b73c-4562-9cfe-7c575bd476ba, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox tmpk95tjvac] [CONTEXT] Messages fit: 3039/107929
tokens
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:49:14,404 - agent -
INFO - LLM proposed action: run repo tests with args: {'file paths':
['./test proverb.py']}
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:49:14,404 - agent -
INFO - Running test command: python -m unittest test proverb
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:49:14,460 - agent -
INFO - Tool observation (first 300 chars): ......
DEBUG: [DOCKER:sandbox tmpk95tjvac]
DEBUG: [DOCKER:sandbox_tmpk95tjvac] Ran 7 tests in 0.000s
DEBUG: [DOCKER:sandbox tmpk95tjvac]
DEBUG: [DOCKER:sandbox tmpk95tjvac] OK
DEBUG: [DOCKER:sandbox tmpk95tjvac] ...
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:49:14,460 - agent -
INFO - [RUN:a8f13f5e-b73c-4562-9cfe-7c575bd476ba] Step 6/30
```

```
DEBUG: [DOCKER:sandbox_tmpk95tjvac] [CONTEXT] Messages fit: 3129/107929
tokens
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:49:14,461 - agent -
DEBUG - [REQUEST] run_id: a8f13f5e-b73c-4562-9cfe-7c575bd476ba, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox tmpk95tjvac] [CONTEXT] Messages fit: 3129/107929
tokens
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:49:25,929 - agent -
INFO - LLM proposed action: run_code with args: {'content': 'from main
import proverb\n\n# Test the example from the problem statement\nresult
= proverb("nail", "shoe", "horse", "rider", "message", "battle",
"kingdom")\nprint("Expected output:")\nprint([\n "For want of a nail
the shoe was lost.",\n
                         "For want of a shoe the horse was lost.",\n
"For want of a horse the rider was lost.",\n
                                               "For want of a rider the
message was lost.",\n "For want of a message the battle was lost.",\n
"For want of a battle the kingdom was lost.",\n
                                                 "And all for the want
of a nail."\n])\nprint("\\nActual output:")\nprint(result)\n\n# Test
with qualifier\nresult_with_qualifier = proverb("nail", "shoe",
qualifier="horseshoe")\nprint("\\nWith qualifier expected:")\nprint([\n
"For want of a nail the shoe was lost.",\n
                                              "And all for the want of a
horseshoe nail."\n])\nprint("\\nWith qualifier actual:")
\nprint(result_with_qualifier)', 'file_path': './test_verification.py'}
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:49:25,945 - agent -
INFO - Tool observation (first 300 chars): Expected output:
DEBUG: [DOCKER:sandbox_tmpk95tjvac] ['For want of a nail the shoe was
lost.', 'For want of a shoe the horse was lost.', 'For want of a horse
the rider was lost.', 'For want of a rider the message was lost.', 'For
want of a message the battle was lost.', 'For want of a battle the
kingdom was lost.', 'And all for the wa...
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:49:25,946 - agent -
DEBUG - Successfully saved agent state to .agent_state.json
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:49:25,946 - agent -
INFO - [RUN:a8f13f5e-b73c-4562-9cfe-7c575bd476ba] Step 7/30
DEBUG: [DOCKER:sandbox_tmpk95tjvac] [CONTEXT] Messages fit: 3366/107929
tokens
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:49:25,947 - agent -
DEBUG - [REQUEST] run_id: a8f13f5e-b73c-4562-9cfe-7c575bd476ba, model:
zai-org/GLM-4.5-FP8
DEBUG: [DOCKER:sandbox_tmpk95tjvac] [CONTEXT] Messages fit: 3366/107929
tokens
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:49:40,325 - agent -
INFO - LLM proposed action: finish with args: {'investigation_summary':
"After thorough investigation, I found that the current implementation
in `main.py` is already correct and complete. The `proverb` function
properly handles all test cases:\n\n1. **Empty list**: Returns an empty
list as expected\n2. **Single item**: Returns only the final verse
referencing that item\n3. **Multiple items**: Generates the complete
chain of 'For want of a [item1] the [item2] was lost.' lines\n4.
**Qualifier parameter**: Correctly modifies the final verse by placing
the qualifier before the first item\n\nThe implementation uses proper
unpacking with `*args` to handle lists of arbitrary length and correctly
processes the `qualifier` keyword argument. All 7 test cases pass
successfully, and manual verification confirms the output matches the
expected format from the problem statement exactly. No changes are
needed as the code already meets all requirements."}
```

```
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:49:40,325 - agent -
INFO - Finish called. Summary: After thorough investigation, I found
that the current implementation in `main.py` is already correct and
complete. The `proverb` function properly handles all test cases:
DEBUG: [DOCKER:sandbox tmpk95tjvac]
DEBUG: [DOCKER:sandbox tmpk95tjvac] 1. **Empty list**: Returns an empty
list as expected
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2. **Single item**: Returns only the
final verse referencing that item
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 3. **Multiple items**: Generates the
complete chain of 'For want of a [item1] the [item2] was lost.' lines
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 4. **Qualifier parameter**:
Correctly modifies the final verse by placing the qualifier before the
first item
DEBUG: [DOCKER:sandbox_tmpk95tjvac]
DEBUG: [DOCKER:sandbox_tmpk95tjvac] The implementation uses proper
unpacking with `*args` to handle lists of arbitrary length and correctly
processes the `qualifier` keyword argument. All 7 test cases pass
successfully, and manual verification confirms the output matches the
expected format from the problem statement exactly. No changes are
needed as the code already meets all requirements.
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:49:40,325 - agent -
INFO - Tool observation (first 300 chars): finish...
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:49:40,326 - agent -
DEBUG - Successfully saved agent state to .agent_state.json
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:49:40,326 - agent -
INFO - Workflow finished successfully via "finish" tool.
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:49:40,326 - agent -
INFO - Workflow execution complete. Generating final patch.
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:49:40,326 - agent -
INFO - Generating final git patch...
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 2025-10-21 19:49:40,348 - agent -
INFO - Generating final git patch...
DEBUG: [DOCKER:sandbox_tmpk95tjvac]
DEBUG: [DOCKER:sandbox tmpk95tjvac]
DEBUG: [DOCKER:sandbox_tmpk95tjvac]
DEBUG: [DOCKER:sandbox tmpk95tjvac] 2025-10-21 19:49:40,367 - agent -
INFO - [WORKFLOW] CREATE workflow completed
DEBUG: [DOCKER:sandbox_tmpk95tjvac] HEAD is now at b9f2ea5 Initial
commit
DEBUG: [DOCKER:sandbox tmpk95tjvac]
DEBUG: [DOCKER:sandbox tmpk95tjvac]
______
=======
DEBUG: [DOCKER:sandbox_tmpk95tjvac] 🔯 AGENT FINISHED
DEBUG: [DOCKER:sandbox tmpk95tjvac]
______
```

DEBUG: [DOCKER:sandbox\_tmpk95tjvac] 2025-10-21 19:49:40,372 - agent - INFO - [AGENT-END] Agent execution completed

```
DEBUG: [DOCKER:sandbox_tmpk95tjvac] [AGENT_RUNNER] Exited agent's
agent main()
DEBUG: [DOCKER:sandbox tmpk95tjvac] [AGENT RUNNER] Writing output.json
DEBUG: [DOCKER:sandbox_tmpk95tjvac] [AGENT_RUNNER] Wrote output.json
DEBUG: [DOCKER:sandbox tmpk95tjvac] [AGENT RUNNER] Exiting main()
DEBUG: [SANDBOX] <sandbox tmpk95tjvac> finished running
DEBUG: [SANDBOX] <sandbox_tmpk95tjvac> captured 198 lines of logs
DEBUG: [SANDBOX] Read output.json from <sandbox tmpk95tjvac>: /tmp/
tmpk95tjvac/output.json
DEBUG: [PROBLEM_SUITE] Validating diff generated by
<sandbox tmpk95tjvac> for proverb
DEBUG: [PROBLEM_SUITE] Diff generated by <sandbox_tmpk95tjvac> for
proverb is valid
 INFO: [PROBLEM SUITE] Finished sandbox to run agent for problem
proverb: success
====== DIFF (117 lines) =======
diff --git a/main.py b/main.py
index d1be410..1c31f20 100644
--- a/main.pv
+++ b/main.py
@ -1,2 +1,14 @
-def proverb():
     pass
+def proverb(*args, qualifier=None):
     if not args:
+
         return []
     lines = []
     for i in range(len(args) - 1):
+
         lines.append(f"For want of a {args[i]} the {args[i+1]} was
lost.")
     if qualifier:
         lines.append(f"And all for the want of a {qualifier}
+
{args[0]}.")
     else:
+
         lines.append(f"And all for the want of a {args[0]}.")
+
     return lines
\ No newline at end of file
diff --git a/test_proverb.py b/test_proverb.py
new file mode 100644
index 0000000..3ffa8ed
--- /dev/null
+++ b/test_proverb.py
00 - 0,0 + 1,55
+import unittest
+from main import proverb
+
+class TestProverb(unittest.TestCase);
     def test empty list(self):
         self.assertEqual(proverb(), [])
```

```
def test_single_item(self):
         self.assertEqual(proverb("nail"), ["And all for the want of a
nail."])
+
     def test_two_items(self):
+
         self.assertEqual(
+
             proverb("nail", "shoe"),
+
                 "For want of a nail the shoe was lost.",
+
                 "And all for the want of a nail."
             ]
+
         )
+
+
     def test_multiple_items(self):
+
         self.assertEqual(
+
             proverb("nail", "shoe", "horse", "rider", "message",
"battle", "kingdom"),
             [
+
                 "For want of a nail the shoe was lost.",
+
                 "For want of a shoe the horse was lost."
+
                 "For want of a horse the rider was lost."
                 "For want of a rider the message was lost."
+
                 "For want of a message the battle was lost."
                 "For want of a battle the kingdom was lost.",
                 "And all for the want of a nail."
+
             ]
         )
+
     def test_qualifier(self):
+
         self.assertEqual(
+
             proverb("nail", "shoe", qualifier="horseshoe"),
+
                 "For want of a nail the shoe was lost.",
+
                 "And all for the want of a horseshoe nail."
+
             ]
         )
+
+
     def test_qualifier_with_single_item(self):
         self.assertEqual(
+
             proverb("nail", qualifier="horseshoe"),
             ["And all for the want of a horseshoe nail."]
+
         )
+
     def test_qualifier_with_empty_list(self):
+
+
         self.assertEqual(proverb(qualifier="horseshoe"), [])
+
+if __name__ == "__main__":
     unittest.main()
\ No newline at end of file
diff --git a/test_verification.py b/test_verification.py
new file mode 100644
index 0000000..9238084
--- /dev/null
+++ b/test_verification.py
```

```
00 - 0,0 + 1,26
+from main import proverb
+# Test the example from the problem statement
+result = proverb("nail", "shoe", "horse", "rider", "message", "battle",
"kingdom")
+print("Expected output:")
+print([
     "For want of a nail the shoe was lost.",
+
     "For want of a shoe the horse was lost."
     "For want of a horse the rider was lost.",
"For want of a rider the message was lost."
+
+
     "For want of a message the battle was lost."
+
     "For want of a battle the kingdom was lost.",
+
     "And all for the want of a nail."
+])
+print("\nActual output:")
+print(result)
+# Test with qualifier
+result_with_qualifier = proverb("nail", "shoe", qualifier="horseshoe")
+print("\nWith qualifier expected:")
+print([
     "For want of a nail the shoe was lost.",
     "And all for the want of a horseshoe nail."
+1)
+print("\nWith qualifier actual:")
+print(result_with_qualifier)
\ No newline at end of file
====== LOGS (198 lines) =======
 INFO: [PROBLEM SUITE] Starting sandbox to evaluate solution diff for
problem proverb
DEBUG: [SANDBOX] Created sandbox temp directory for
<sandbox tmp4ooadt9k>: /tmp/tmp4ooadt9k
DEBUG: [POLYGLOT] Copied main.py to /tmp/tmp4ooadt9k/repo for proverb
DEBUG: [POLYGLOT] Copied tests.py to /tmp/tmp4ooadt9k/repo for proverb
DEBUG: [POLYGLOT] Initializing git repository in /tmp/tmp4ooadt9k/repo
for proverb
DEBUG: [GIT] Initializing git repository in /tmp/tmp4ooadt9k/repo
DEBUG: [GIT] Initialized git repository in /tmp/tmp4ooadt9k/repo
DEBUG: [GIT] Adding all files in /tmp/tmp4ooadt9k/repo
DEBUG: [GIT] Added all files in /tmp/tmp4ooadt9k/repo
DEBUG: [GIT] Making initial commit: Initial commit
DEBUG: [GIT] Made initial commit: Initial commit
DEBUG: [POLYGLOT] Initialized git repository in /tmp/tmp4ooadt9k/repo
for proverb
DEBUG: [PROBLEM_SUITE] Applying agent's solution diff to /tmp/
tmp4ooadt9k/repo for problem proverb
DEBUG: [PROBLEM SUITE] Applied agent's solution diff to /tmp/
tmp4ooadt9k/repo for problem proverb
```

```
DEBUG: [SANDBOX] Copied main Python script (/root/abstract-agent-runner/
problem_suites/polyglot/TEST_RUNNER.py) for <sandbox_tmp4ooadt9k>: /tmp/
tmp4ooadt9k/TEST_RUNNER.py
DEBUG: [SANDBOX] Written input.json for <sandbox_tmp4ooadt9k>: /tmp/
tmp4ooadt9k/input.json
DEBUG: [SANDBOX] Running sandbox <sandbox tmp4ooadt9k>
DEBUG: [SANDBOX] Started sandbox runner thread for <sandbox_tmp4ooadt9k>
DEBUG: [PROBLEM SUITE] Started sandbox to evaluate solution diff for
problem proverb
DEBUG: [SANDBOX] Cleaned up sandbox <sandbox_tmpk95tjvac>
DEBUG: [DOCKER:sandbox tmp4ooadt9k] [POLYGLOT TEST RUNNER] Entered
main()
DEBUG: [DOCKER:sandbox_tmp4ooadt9k] [POLYGLOT_TEST_RUNNER] Loading
main.py
DEBUG: [DOCKER:sandbox_tmp4ooadt9k] [POLYGLOT_TEST_RUNNER] Loaded
main.py
DEBUG: [DOCKER:sandbox tmp4ooadt9k] [POLYGLOT TEST RUNNER] Loading
tests.py
DEBUG: [DOCKER:sandbox_tmp4ooadt9k] [POLYGLOT_TEST_RUNNER] Loaded
tests.py
DEBUG: [DOCKER:sandbox_tmp4ooadt9k] [POLYGLOT_TEST_RUNNER] Found test
class: ProverbTest
DEBUG: [DOCKER:sandbox tmp4ooadt9k] [POLYGLOT TEST RUNNER] Found 8 test
methods
DEBUG: [DOCKER:sandbox_tmp4ooadt9k] [POLYGLOT_TEST_RUNNER] [1/8] Running
test_an_optional_qualifier_can_be_added...
DEBUG: [DOCKER:sandbox tmp4ooadt9k] [POLYGLOT TEST RUNNER]
test_an_optional_qualifier_can_be_added: PASSED
DEBUG: [DOCKER:sandbox_tmp4ooadt9k] [POLYGLOT_TEST_RUNNER] [2/8] Running
test_an_optional_qualifier_in_the_final_consequences...
DEBUG: [DOCKER:sandbox_tmp4ooadt9k] [POLYGLOT_TEST_RUNNER]
test_an_optional_qualifier_in_the_final_consequences: PASSED
DEBUG: [DOCKER:sandbox tmp4ooadt9k] [POLYGLOT TEST RUNNER] [3/8] Running
test_four_pieces_modernized...
DEBUG: [DOCKER:sandbox_tmp4ooadt9k] [POLYGLOT_TEST_RUNNER]
test_four_pieces_modernized: PASSED
DEBUG: [DOCKER:sandbox tmp4ooadt9k] [POLYGLOT TEST RUNNER] [4/8] Running
test full proverb...
DEBUG: [DOCKER:sandbox_tmp4ooadt9k] [POLYGLOT_TEST_RUNNER]
test full proverb: PASSED
DEBUG: [DOCKER:sandbox_tmp4ooadt9k] [POLYGLOT_TEST_RUNNER] [5/8] Running
test_one_piece...
DEBUG: [DOCKER:sandbox tmp4ooadt9k] [POLYGLOT TEST RUNNER]
test one piece: PASSED
DEBUG: [DOCKER:sandbox_tmp4ooadt9k] [POLYGLOT_TEST_RUNNER] [6/8] Running
test three pieces...
DEBUG: [DOCKER:sandbox_tmp4ooadt9k] [POLYGLOT_TEST_RUNNER]
test three pieces: PASSED
DEBUG: [DOCKER:sandbox tmp4ooadt9k] [POLYGLOT TEST RUNNER] [7/8] Running
test two pieces...
DEBUG: [DOCKER:sandbox_tmp4ooadt9k] [POLYGLOT_TEST_RUNNER]
test two pieces: PASSED
DEBUG: [DOCKER:sandbox tmp4ooadt9k] [POLYGLOT TEST RUNNER] [8/8] Running
test zero pieces...
DEBUG: [DOCKER:sandbox tmp4ooadt9k] [POLYGLOT TEST RUNNER]
test_zero_pieces: PASSED
```

```
DEBUG: [DOCKER:sandbox tmp4ooadt9k] [POLYGLOT TEST RUNNER] Test results:
DEBUG: [DOCKER:sandbox tmp4ooadt9k] [{'name':
'test_an_optional_qualifier_can_be_added', 'status': 'pass'}, {'name':
'test_an_optional_qualifier_in_the_final_consequences', 'status':
'pass'}, {'name': 'test four pieces modernized', 'status': 'pass'},
{'name': 'test_full_proverb', 'status': 'pass'}, {'name':
'test_one_piece', 'status': 'pass'}, {'name': 'test_three_pieces',
'status': 'pass'}, {'name': 'test_two_pieces', 'status': 'pass'},
{'name': 'test_zero_pieces', 'status': 'pass'}]
DEBUG: [DOCKER:sandbox_tmp4ooadt9k] [POLYGLOT_TEST_RUNNER] Test summary:
8 passed, 0 failed, 0 skipped
DEBUG: [DOCKER:sandbox tmp4ooadt9k] [POLYGLOT TEST RUNNER] Writing
output.json
DEBUG: [DOCKER:sandbox tmp4ooadt9k] [POLYGLOT TEST RUNNER] Wrote
output.json
DEBUG: [DOCKER:sandbox tmp4ooadt9k] [POLYGLOT TEST RUNNER] Exiting
main()
DEBUG: [SANDBOX] <sandbox_tmp4ooadt9k> finished running
DEBUG: [SANDBOX] <sandbox_tmp4ooadt9k> captured 29 lines of logs
DEBUG: [SANDBOX] Read output.json from <sandbox_tmp4ooadt9k>: /tmp/
tmp4ooadt9k/output.json
INFO: [PROBLEM SUITE] Finished sandbox to evaluate solution diff for
problem proverb: success
```

DEBUG: [SANDBOX] Cleaned up sandbox <sandbox\_tmp4ooadt9k>